

THE NATIONAL ARCHIVES  
LITTERA  
SCRIPTA  
MANET  
1934  
OF THE UNITED STATES

# FEDERAL REGISTER

VOLUME 2      NUMBER 189

*Washington, Thursday, September 30, 1937*

**PRESIDENT OF THE UNITED STATES.**

**EXECUTIVE ORDER**

**PRESCRIBING REGULATIONS FOR CARRYING INTO EFFECT IN THE VIRGIN ISLANDS CERTAIN PROVISIONS OF THE MARIHUANA TAX ACT OF 1937**

WHEREAS section 15 of the Marihuana Tax Act of 1937, approved August 2, 1937 (Public, No. 238, 75th Congress), provides, in part:

"The President is hereby authorized and directed to issue such Executive orders as will carry into effect in the Virgin Islands the intent and purpose of this Act by providing for the registration with appropriate officers and the imposition of the special and transfer taxes upon all persons in the Virgin Islands who import, manufacture, produce, compound, sell, deal in, dispense, prescribe, administer, or give away marihuana.";

AND WHEREAS it is desired that the Governor of the Virgin Islands and the Commissioner of Finance of the Virgin Islands shall, in connection with the Marihuana Tax Act of 1937, perform duties in the Virgin Islands analogous to those performed in the continental United States by the Secretary of the Treasury and his subordinates:

NOW, THEREFORE, by virtue of and pursuant to the authority vested in me by the statutory provisions above set out it is hereby ordered as follows:

SEC. 1. In enforcing the provisions of the Marihuana Tax Act of 1937, the Commissioner of Finance of the Virgin Islands shall perform in the Virgin Islands administrative duties like those the Commissioner of Internal Revenue and collectors of internal revenue are required to perform in the continental United States, and the Governor of the Virgin Islands shall perform duties in the Virgin Islands like those the Commissioner of Narcotics is required to perform in the continental United States.

SEC. 2. On and after the first day of October, 1937, no person in the Virgin Islands shall import, manufacture, produce, compound, sell, deal in, dispense, prescribe, administer, give away, or acquire marihuana unless he shall have complied with the provisions of the said Act in the manner provided for in this Order and regulations issued pursuant thereto.

SEC. 3. Every person in the Virgin Islands who by the terms of the said Act would be required if located within the continental United States to register with the collector of internal revenue of his district, his name or style and his place or places of business, shall register the like information with the Commissioner of Finance of the Virgin Islands on forms to be prescribed by the Governor of the Virgin Islands. At the time of such registry and on or before the first day of July annually thereafter, every person in the Virgin Islands who imports, manufactures, produces, compounds, sells, deals in, dispenses, prescribes, administers, or gives away marihuana shall

pay to the Commissioner of Finance of the Virgin Islands special taxes at the rates provided for in section 2 of the said Act: *Provided, however,* that any person in the Virgin Islands who would not be required if located within the continental United States to register or pay a special tax shall not be required to register or pay the special taxes as herein provided.

SEC. 4. The Commissioner of Finance of the Virgin Islands, with the approval of the Governor of the Virgin Islands, shall cause suitable order forms and copies to be prepared for sale to persons as required by section 6 (a) of the Act. The price of the order form as sold by the Commissioner of Finance of the Virgin Islands under section 6 (c) of the Act shall be two cents for the original and one copy. The Commissioner of Finance shall furnish appropriate stamps to represent the payment of the transfer tax levied by section 7 of the said Act. Such stamps shall be provided by the Commissioner of Internal Revenue of the Treasury Department of the United States upon requisition.

SEC. 5. The Governor of the Virgin Islands may prescribe such regulations as may be necessary to carry into full force and effect the provisions of the said Act and this Order. In prescribing such regulations, the regulations prescribed by the Commissioners of Narcotics and Internal Revenue and approved by the Secretary of the Treasury of the United States shall be followed in so far as they can be made applicable to conditions in the Virgin Islands.

SEC. 6. The Governor of the Virgin Islands and any persons acting under his supervision or direction shall have the right to make such inspection and take such action as may be necessary to enforce the provisions of the said Act under this Order.

FRANKLIN D. ROOSEVELT

THE WHITE HOUSE,  
September 26, 1937.

[No. 7715]

[F. R. Doc. 37-2903; Filed, September 29, 1937; 10:09 a. m.]

**TREASURY DEPARTMENT.**

Bureau of Customs.

[T. D. 49166]

**RATE OF DUTY ON IMPORTED DATES, FRESH OR DRIED**

*To Collectors of Customs:*

Under date of September 10, 1937, Van Dyk & Reeves, Inc., 167 41st Street, Brooklyn, New York, domestic packers of imported dates, requested that they be advised under the provisions of section 516 (b) of the Tariff Act of 1930 (U. S. C., title 19, sec. 1516), as to the classification of and rate of duty assessed on dates, fresh or dried, imported in





# FEDERAL REGISTER

Published by the Division of the Federal Register, The National Archives, pursuant to the authority contained in the Federal Register Act, approved July 26, 1935 (49 Stat. L. 500), under regulations prescribed by the Administrative Committee, with the approval of the President.

The Administrative Committee consists of the Archivist or Acting Archivist, an officer of the Department of Justice designated by the Attorney General, and the Public Printer or Acting Public Printer.

The daily issue of the FEDERAL REGISTER will be furnished by mail to subscribers, free of postage, for \$1 per month or \$10 per year; single copies 5 cents; payable in advance. Remit by money order payable to Superintendent of Documents, Government Printing Office, Washington, D. C.

Correspondence concerning the publication of the FEDERAL REGISTER should be addressed to the Director, Division of the Federal Register, The National Archives, Washington, D. C.

## TABLE OF CONTENTS

Department of Agriculture:	
Farm Security Administration:	Page
Approval of loans to individuals.....	2354
Department of Commerce:	
Bureau of Air Commerce:	
Civil Air Regulations:	
Chapter 20. Pilot rating.....	2354
Chapter 21. Airline pilot rating.....	2361
Chapter 23. Ground instructor rating.....	2365
Chapter 24. Mechanic rating.....	2366
Chapter 25. Parachute rigger rating.....	2367
Chapter 26. Traffic control tower operator rating.....	2368
Chapter 27. Airline dispatcher rating.....	2371
Chapter 40. Scheduled airline rating (inter-state).....	2371
Chapter 50. Flying school rating.....	2379
Chapter 52. Aircraft repair station rating.....	2382
Chapter 61. Scheduled airline rules.....	2385
Department of the Interior:	
Bureau of Reclamation:	
California, Central Valley Project, reclamation withdrawal.....	2350
California-Oregon, Tule Lake Division of Klamath Irrigation Project, order opening public lands to entry.....	2350
President of the United States:	
Executive Order:	
Virgin Islands, regulations for carrying into effect certain provisions of the Marihuana Tax Act of 1937.....	2347
Rural Electrification Administration:	
Allocation of funds for loans.....	2393
Securities and Exchange Commission:	
Notice of and orders for hearings in matter of:	
Haverhill Electric Co.....	2394
North Boston Lighting Properties.....	2394
Securities Exchange Act of 1934:	
Rule as to non-disclosure of certain information.....	2393
Treasury Department:	
Bureau of Customs:	
Dates, fresh or dried, duty on imported.....	2347
Entry of articles for exhibition at Oil World Exposition, Houston, Tex.....	2348

wooden boxes or other shipping containers, the contents of which weigh with such container more than 10 pounds, and packed in the following manner:

Within each container above described are layers each weighing more than 10 pounds, each layer being separated into individual units by single strips of paper or similar packing material so that the units so separated weigh not more than 10 pounds each. Either the top or bottom of each layer is covered by a single sheet of paper or similar packing material, and the opposite surface of said layer is covered by smaller single sheets, each of which covers two or more single units. Some of the sides and ends of the layers and of the groups of the units which form each layer are covered either wholly or partly by the extension of the sheet or sheets covering the top or bottom of the layer, and others by a single sheet used as a lining for a whole side or end of the wooden box. No unit or group of units weighing not more than ten pounds per unit or group can be separated from the layer without removing or breaking one or more sheets of the packing material.

The Bureau in a letter dated September 24, 1937, advised Van Dyk & Reeves, Inc. that dates imported in the condition above described are assessed with duty at the rate of 1 cent per pound if imported with pits, or at the rate of 2 cents per pound if imported with pits removed, under the provisions of paragraph 741 of the Tariff Act of 1930 (U. S. C., title 19, sec. 1001, par. 741).

In a complaint filed in the Bureau against these classifications and rates of duty the domestic producers contend that such dates packed in the manner described are properly dutiable at the rate of 7½ cents per pounds as dates, fresh or dried, with pits or with pits removed, in packages weighing with the immediate container not more than 10 pounds each, under paragraph 741 of the Tariff Act of 1930.

In the opinion of the Bureau, dates packed in the manner described are not dates in packages weighing with the immediate container not more than 10 pounds each, and the assessment of duty on such dates as dates, fresh or dried, with pits, at the rate of 1 cent per pound, or as dates, fresh or dried, with pits removed, at the rate of 2 cents per pound, under paragraph 741 of the Tariff Act of 1930, is hereby approved and should be continued.

In accordance with the provisions of section 516 (b) of the Tariff Act of 1930 notice is hereby given that the classification of and the rate of duty on merchandise of the character described imported or withdrawn from warehouse after the expiration of 30 days after the date of publication of this letter in the weekly Treasury Decisions will be subject to the decision of the United States Customs Court in the event that a protest is filed under the provisions of that subsection.

[SEAL]

J. H. MOYLE,  
Commissioner of Customs.

Approved, September 25, 1937.

STEPHEN B. GIBBONS,  
Acting Secretary of the Treasury.

[F. R. Doc. 37-2898; Filed, September 28, 1937; 3:59 p. m.]

[T. D. 49167]

REGULATIONS FOR ENTRY OF ARTICLES FOR THE EXHIBITION TO BE HELD AT HOUSTON, TEXAS, FROM OCTOBER 11 TO 16, 1937, INCLUSIVE, BY THE OIL WORLD EXPOSITION

SEPTEMBER 25, 1937.

To Collectors of Customs and Others Concerned:

Attention is invited to the provisions of Public Resolution No. 66 of the Seventy-fifth Congress, approved August 21, 1937, which read as follows:

That the President of the United States is authorized to invite by proclamation, or in such other manner as he may deem proper, the States of the Union and all foreign countries to participate in the proposed Oil World Exposition, to be held at



Houston, Texas, from October 11 to 16, 1937, inclusive, for the purpose of exhibiting samples of fabricated and raw products of all countries produced by the petroleum industry; and the exhibiting of the tools and equipment used by the industry; and bringing together buyers and sellers for promotion of trade and commerce in such products.

SEC. 2. That all articles which shall be imported from foreign countries for the purpose of exhibition at the Oil World Exposition, to be held at Houston, Texas, from October 11 to 16, 1937, inclusive, by the Oil World Exposition, or for use in constructing, installing, or maintaining foreign buildings or exhibits at the said exposition, upon which articles there shall be a tariff or customs duty, shall be admitted without payment of such tariff, customs duty, fees, or charges under such regulations as the Secretary of the Treasury shall prescribe; but it shall be lawful at any time during or within three months after the close of the said exposition to sell within the area of the exposition any articles provided for herein, subject to such regulations for the security of the revenue and for the collection of import duties as the Secretary of the Treasury shall prescribe: *Provided*, That all such articles, when withdrawn for consumption or use in the United States, shall be subject to the duties, if any, imposed upon such articles by the revenue laws in force at the date of their withdrawal; and on such articles which shall have suffered diminution or deterioration from incidental handling or exposure, the duties, if payable, shall be assessed according to the appraised value at the time of withdrawal from entry hereunder for consumption or entry under the general tariff law: *Provided further*, That imported articles provided for herein shall not be subject to any marking requirements of the general tariff laws, except when such articles are withdrawn for consumption or use in the United States, in which case they shall not be released from customs custody until properly marked, but no additional duty shall be assessed because such articles were not sufficiently marked when imported into the United States: *Provided further*, That at any time during or within three months after the close of the exposition any article entered hereunder may be abandoned to the Government or destroyed under customs supervision, whereupon any duties on such article shall be remitted: *Provided further*, That articles which have been admitted without payment of duty for exhibition under any tariff law and which have remained in continuous customs custody or under a customs exhibition bond and imported articles in bonded warehouse under the general tariff law may be accorded the privilege of transfer to and entry for exhibition at the said exposition under such regulations as the Secretary of the Treasury shall prescribe: *And provided further*, That the Oil World Exposition shall be deemed, for customs purposes only, to be the sole consignee of all merchandise imported under the provisions of this Act, and that the actual and necessary customs charges for labor, services, and other expenses in connection with the entry, examination, appraisal, release, or custody, together with the necessary charges for salaries of customs officers and employees in connection with the supervision, custody of, and accounting for articles imported under the provisions of this Act, shall be reimbursed by the Oil World Exposition to the Government of the United States under regulations to be prescribed by the Secretary of the Treasury, and that receipts from such reimbursements shall be deposited as refunds to the appropriation from which paid, in the manner provided for in section 524 of the Tariff Act of 1930.

SEC. 3. That the Government of the United States is not by this resolution obligated to any expense in connection with the holding of such exposition.

(1) All packages containing imported merchandise to be entered under the provisions of the joint resolution shall be plainly marked "Oil World Exposition" and with the name of the country of origin and shall bear separate serial numbers.

(2) All importations of articles of a class requiring a consular invoice, intended for exhibition under the provisions of the joint resolution and valued at more than \$100, must be covered by consular invoices certified as provided in article 276 of the Customs Regulations of 1937.<sup>1</sup> Such invoices shall contain the information prescribed under section 481 of the Tariff Act of 1930 (U. S. C., title 19, sec. 1481) and shall show that the articles covered thereby are destined to the port of Houston, Texas, and are intended for exhibition or use at the Oil World Exposition, Houston, Texas.

(3) The Oil World Exposition shall give to the deputy collector of customs at Houston, Texas, such security for compliance with the joint resolution and these regulations as may be approved by the Commissioner of Customs.

(4) The collector of customs at Galveston shall detail an officer to act as his representative at the Oil World Exposition and shall station inside the exhibition buildings as

many additional customs officers and employees as may be necessary to properly protect the revenue.

(5) All actual and necessary customs charges for labor, services, and other expenses in connection with the entry, examination, appraisal, release, or custody of imported articles, together with the necessary charges for salaries of customs officers and employees in connection with the supervision and custody of, and accounting for, articles imported for exhibition at the Oil World Exposition or transferred thereto for exhibition, shall be reimbursed by the Oil World Exposition to the Government, payment to be made monthly to the deputy collector of customs, Houston, Texas, for deposit to the credit of the Treasurer of the United States as a refund to the appropriation "Collecting the revenue from customs."

(6) Articles to be entered under these regulations which arrive at ports other than Houston shall be entered for immediate transportation without appraisal to the latter port in the manner provided by the general customs regulations.

(7) Articles which have been admitted without payment of duty for exhibition under any tariff law and which have remained in continuous customs custody or under a customs exhibition bond may be transferred to entry for exhibition at the Oil World Exposition in the manner prescribed in article 453 (c) of the Customs Regulations of 1937,<sup>2</sup> except that in each case an entry under paragraph (8) of these regulations shall be filed, which shall supersede any previous entry, and no new bond other than that specified in paragraph (3) shall be required. Imported articles in bonded warehouses under the general tariff law may be transferred to entry for exhibition at the Oil World Exposition in the manner prescribed in article 323 of the Customs Regulations of 1937.<sup>3</sup>

(8) Upon the arrival at the port of Houston of articles to be entered under these regulations the same should be entered on a special form of entry to read substantially as follows:

Entry for Exhibition

Entry No. \_\_\_\_\_

Entry at the port of Houston of articles consigned or transferred to the Oil World Exposition under \_\_\_\_\_ I. T. No. \_\_\_\_\_ ex S. S. \_\_\_\_\_ from \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_, 1937, for exhibition purposes under Public Resolution No. 66 of the Seventy-fifth Congress, approved August 21, 1937.

Mark	Number	Package and contents	Quantity	Invoice	Value

OIL WORLD EXPOSITION,

By \_\_\_\_\_

(9) Upon such entry being made, the deputy collector shall issue a special permit for the transfer of the articles covered thereby to the buildings in which they are to be exhibited or used, or, in the discretion of the deputy collector, to the appraiser's stores for examination and subsequent transfer to the buildings in which they are to be exhibited or used. Upon the receipt of the articles at such buildings or at the appraiser's stores, the same shall be given a tentative appraisal prior to their exhibition or use. All imported exhibits so received in such buildings shall be kept segregated from domestic articles and imported duty-paid articles and shall not be removed from the exhibition building except in accordance with paragraph (11) of these regulations.

(10) If for any reason articles imported for entry under these regulations are not upon their arrival to be delivered immediately at an exhibition building, the importer should so indicate to the deputy collector in writing, who will cause such articles to be placed in a bonded warehouse under a

<sup>1</sup> 2 F. R. 1797 (DI).

<sup>2</sup> 2 F. R. 1833 (DI).

<sup>3</sup> 2 F. R. 1807 (DI).



"general order permit" at the importer's risk and expense, and such articles may be entered at any time within one year from the date of importation for exhibition, as herein provided, or under the general tariff law, or for exportation. If not so entered within such period they will be regarded as abandoned to the Government.

(11) Any articles entered under these regulations may be withdrawn for exportation, for abandonment to the Government, destruction under customs supervision, or for consumption or entry under the general tariff law, but not otherwise, at any time during or within three months after the close of the exposition. Upon the withdrawal of such articles for consumption or for entry under the general tariff law, or at the expiration of three months after the close of the exposition in the case of articles not previously so withdrawn, they shall be appraised with due allowance made for diminution or deterioration from incidental handling or exposure. Such appraisal shall be final in the absence of an appeal to reappraisal, as provided in section 501 of the Tariff Act of 1930 (U. S. C., title 19, sec. 1501). In the case of such articles withdrawn for entry under the general tariff law under a warehouse bond or a bond conditioned upon exportation, the statutory period of the bond and any extension thereof shall be computed from the date of withdrawal.

(12) At any time during or within three months after the close of the exposition, any article entered hereunder may be abandoned to the Government or destroyed under customs supervision, as provided in article 808 of the Customs Regulations of 1937.\*

(13) Any articles entered under these regulations which have not been withdrawn for consumption, entry under the general tariff law, or exportation, or which have not been abandoned to the Government or destroyed under customs supervision, before the expiration of three months after the close of the exposition, shall be regarded as abandoned to the Government.

(14) All entries under these regulations shall be made in the name of the Oil World Exposition, which shall be deemed for customs purposes the sole consignee of the merchandise entered under the act and which shall be held responsible to the Government for all duties and/or charges due the United States on account of such entries; but, in the case of merchandise withdrawn from entry under these regulations, an entry under the general tariff law, in the name of any person duly authorized in writing by the Oil World Exposition to make such entry, may be accepted by the deputy collector, and the bond of the Oil World Exposition shall thereafter be considered as collateral security for any duties and/or charges accruing on the merchandise covered by any such entry, unless the entry is for permanent exhibition, in which case the liability of the Oil World Exposition under its bond with respect to the articles covered by such entry, shall be terminated when the security required by the general tariff law has been given.

(15) The marking requirements of the Tariff Act of 1930 and the regulations promulgated thereunder will not apply to articles imported under these regulations except when such articles are withdrawn for consumption or use in the United States, in which case they shall be released from customs custody only upon a full compliance with the marking requirements of the tariff act and the regulations promulgated thereunder. No additional duty shall be assessed because such articles were not properly marked when imported into the United States.

[SEAL]

STEPHEN B. GIBBONS,  
Acting Secretary of the Treasury.

[F. R. 37-2899; Filed, September 28, 1937; 3:59 p. m.]

\* 2 F. R. 1906 (DI).

## DEPARTMENT OF THE INTERIOR.

### Bureau of Reclamation.

#### RECLAMATION WITHDRAWAL, CENTRAL VALLEY PROJECT, CALIFORNIA

AUGUST 17, 1937.

#### The SECRETARY OF THE INTERIOR.

SIR: It is recommended that the following described lands be withdrawn from public entry, under the first form of withdrawal, as provided in Section 3, Act of June 17, 1902 (32 Stat., 388).

#### CENTRAL VALLEY PROJECT, CALIFORNIA

##### Mount Diablo Meridian

T. 34 N., R. 4 W.,  
Sec. 22, NE $\frac{1}{4}$ SE $\frac{1}{4}$ ;  
Sec. 23, NW $\frac{1}{4}$ SW $\frac{1}{4}$ ;  
Sec. 26, SE $\frac{1}{4}$ SE $\frac{1}{4}$ ;  
Sec. 36, lots 5, 6, 7, 8, and NE $\frac{1}{4}$ SW $\frac{1}{4}$

Respectfully,

JOHN C. PAGE, *Commissioner.*

Department of the Interior, September 2, 1937.

The lands described are hereby reserved as recommended and the Commissioner of the General Land Office will cause the records of his office and the local land office to be noted accordingly.

OSCAR L. CHAPMAN,  
Assistant Secretary.

[F. R. Doc. 37-2901; Filed, September 29, 1937; 9:45 a. m.]

#### KLAMATH IRRIGATION PROJECT, OREGON-CALIFORNIA, TULE LAKE DIVISION, PART ONE

##### ORDER OPENING PUBLIC LANDS TO ENTRY

SEPTEMBER 9, 1937.

1. *Public land for which water is available and for which entry may be made.*—In pursuance of the act of June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto it is hereby announced that water will be available in the irrigation season of 1938 and thereafter, and beginning October 25, 1937 entry may be made in accordance with this order for the following-described public lands under the Tule Lake Division of the Klamath Irrigation Project, Oregon-California, as shown on farm unit plats of Ts. 47 and 48 N., R. 5 E., M. D. M., California, to-wit:

##### T. 48 N., R. 5 E., M. D. M. California

Section	Farm unit	Irrigable area (acres)	Section	Farm unit	Irrigable area (acres)
29-----	H J K	86.7 72.0 84.4	32-----	G H	84.5 83.9

##### T. 47 N., R. 5 E., M. D. M. California

Section	Farm unit	Irrigable area (acres)	Section	Farm unit	Irrigable area (acres)
3-----	A B C D E F G H	72.4 72.7 72.1 72.9 76.3 75.7 76.1 75.5	10-----	A B C D E F G H	65.9 67.1 66.3 67.1 73.8 72.9 74.1 74.2
4-----	E F G H	72.7 73.2 75.8 76.0	15-----	A B C D E F G H	74.1 75.1 74.0 69.9 74.0 73.1 74.0 73.1
9-----	E F G H	68.2 68.2 73.8 73.8			



## T. 47 N., R. 5 E., M. D. M. California—Continued

Section	Farm unit	Irrigable area (acres)	Section	Farm unit	Irrigable area (acres)
16.....	A	73.7	20.....	G	75.8
	B	73.7	21.....	A	83.4
	C	70.0		B	83.0
	D	67.2		C	72.8
	E	38.7		D	72.9
	F	63.9		E	67.6
	G	73.7		J	86.7
	H	73.7		K	75.9
17.....	A	88.9	22.....	A	72.5
	B	84.9		B	72.2
	C	78.8		C	71.5
	D	83.9		D	73.0
	E	85.1		E	63.7
	F	83.6		F	72.9
18.....	J	79.6		G	71.8
	L	86.5		H	73.7

The farm unit plats referred to above were approved on the date of this order and are on file in the office of the Superintendent, Bureau of Reclamation, Klamath Falls, Oregon, and in the local land office at Sacramento, California.

2. *Limit of acreage for which entry may be made.*—The limit of area of public land per entry, representing the acreage which, in the opinion of the Secretary of the Interior, may be reasonably required for the support of a family upon such land, is fixed at the amounts shown upon the farm unit plats for the respective farm units above listed.

3. *Preference rights to ex-service men.*—Pursuant to the provisions of Public Resolution No. 85, 71st Congress, approved June 12, 1930 (46 Stat., 580), and until January 25, 1938, the lands described above will be open to entry only by officers, soldiers, sailors, or marines who have served in the Army or Navy of the United States in any war, military occupation, or military expedition, and have been honorably separated or discharged therefrom or placed in the regular Army or Naval Reserve. The same preference rights are applicable to those citizens of the United States who served with the allied armies during the World War and who were honorably discharged, upon their resumption of citizenship in the United States, provided the service with the allied armies was similar to the service with the Army of the United States for which recognition is granted in the aforesaid Public Resolution No. 85; *Provided, however*, That they must be qualified to make entry under the homestead laws and also possess the qualifications as to industry, experience, character, and capital required of all applicants under this order.

4. *Applicants must be qualified.*—No entry shall be accepted by the local land office until applicant therefor has satisfied the Examining Board, appointed for the Klamath project to consider such matters, that he is possessed of such qualifications (in addition to the qualifications required under the homestead laws), as to industry, experience, character, and capital, as in the opinion of the board are necessary to give reasonable assurance of success by the prospective settler.

5. *Requirements as to industry, experience, character, and capital.*—Each applicant must possess good health and have had at least two years' actual experience in farm work and farm practice. He must have at least \$2,000 in money free of liability, or the equivalent thereof in livestock, farming equipment, or other assets deemed by the Examining Board to be as useful to the applicant as money.

6. *Examining Board.*—An Examining Board of four members has been appointed by the Secretary of the Interior, to consider the fitness of each applicant to undertake the development and operation of a farm on the Klamath project. Each applicant, except those described in paragraph 12 (a), must appear in person before the Examining Board, and the project superintendent, who is the member representing the United States, and who will act as Secretary of the board, will notify each applicant of the period

of time set for his appearance and examination. The members of the board will be present at the project office when the opening is being held, and interested applicants and particularly non-residents, will be examined at such times as it is convenient for them to be present. There must be, of course, some limit of time covering this feature, and the board will fix this limit, and will also announce such other incidental rules as will necessitate one appearance only by each applicant. Careful investigation shall be made to verify the statements and representations made by applicants, to the end that no misunderstanding may prevail, either regarding the applicant's fitness or his appreciation of the problem before him.

7. *Determination of relative standing of applicants.*—The relative standing of the applicants will be based upon a percentage rating with the following maximum weights given to the four prescribed qualifications:

	Percent
Character .....	15
Industry .....	20
Capital .....	30
Farm Experience .....	35

Applicants will be rated according to the following schedules and no applicants will be considered eligible who fall below the minimum named in any one of the headings of these schedules, or who do not, in the opinion of the board, possess the health and vigor necessary for active farm work:

Character:	Percent
Fair .....	5
Good .....	6-10
Excellent .....	11-15
Industry:	
Fair .....	5
Good .....	6-10
Excellent .....	11-20
Capital:	
\$2,000 to \$2,999 .....	20
\$3,000 to \$3,999 .....	22
\$4,000 to \$4,999 .....	24
\$5,000 to \$5,999 .....	25
\$6,000 to \$6,999 .....	26
\$7,000 to \$7,999 .....	27
\$8,000 to \$8,999 .....	28
\$9,000 to \$9,999 .....	29
\$10,000 or above .....	30

Farm experience:	Percent
2 years in farming other than irrigation .....	10
2 years in irrigation farming, any time .....	15
2 years' farming other than irrigation plus 1½ % for each additional year's experience up to a total of 12 years (including first 2 years), or a maximum of .....	25
2 years in irrigation farming, in last 4 years .....	20
2 years in irrigation farming, in last 2 years .....	25
3 years in irrigation farming, in last 4 years .....	30
3 years or more in responsible charge of irrigation farm in last 4 years .....	35

8. *When, and how to apply for a farm unit.*—Any person desiring to acquire any of the said public land must, as a first step, secure from the Superintendent, at Klamath Falls, Oregon, or from the Commissioner, Bureau of Reclamation, Washington, D. C., a farm application blank. The blanks will be available on and after the date of this notice, and full answer must be made to each question propounded therein. The farm application must designate in the first paragraph the particular farm desired. If the applicant claims a preference right on account of military service, he shall attach to this application an affidavit setting forth such military service. The affidavit shall state the applicant's time of service, the unit of which he was a member, the date on which he was honorably discharged, or separated, or transferred to the regular Army or Naval Reserve, and that he did not refuse to wear the uniform of such service or to perform the duties thereof. If the applicant claims a preference right on account of military service with the allied armies during the World War, the affidavit should also state, if true, that the service with the allied armies was similar to the service with the Army of the United States for which recognition was granted in the said Public Resolution No. 85. There shall be attached to said affidavit a copy of such honorable discharge or separation from the service, or the



order of transfer to the regular Army or Naval Reserve, as the case may be, which copy shall be certified by a notary public to be a true copy of the original.

9. *When and where to file the farm application.*—The farm application with the proof to be furnished by the ex-Service man, may be filed with the Superintendent at Klamath Falls, Oregon, in person, if convenient, or by mail, or otherwise, prior to October 25, 1937. No advantage will accrue to an applicant presenting his application in person rather than by mail, and, if the applicant does not reside at Klamath Falls, his application should be mailed. Farm applications received on or after October 25, 1937 will be filed and noted in the order of their receipt.

10. *Simultaneous filing of farm applications.*—All applications received prior to October 25, 1937, the date of opening, will be held and treated as simultaneously filed.

11. *Preference rights for ex-service men not filing in accordance with Paragraph 10.*—In order that ex-service men may take advantage of the preference right as provided in Paragraph 3 of this order, in the event that they fail to file prior to October 25, 1937, as set forth in Paragraph 10 above, their applications together with the proof to be furnished by them, must be filed in the Office of the Project Superintendent, Klamath Falls, Oregon, on or prior to January 24, 1938, the day before the date upon which the farm units herein described, except those units for which applications of ex-service men have been accepted, become open to entry by the general public. No advantage will accrue to an applicant presenting his application in person rather than by mail.

12. *Showing of applicants and selection thereof.*—

(a) Where the applicant fails to make a *prima facie* case—that is, where the applicant does not possess good health or does not show at least two years' farm experience, and the assets required in Paragraph 5, the application shall be rejected and the applicant notified thereof by registered mail, and of his right to appeal to the Secretary of the Interior within 10 days from receipt of notice. Like action shall be taken where the evidence of military service is defective or not furnished. All appeals allowed under this order must be filed in the office of the project superintendent at Klamath Falls, Oregon, and within 10 days from receipt of notice.

(b) Each applicant who makes a *prima facie* case and has not been previously examined by the board shall be notified by the board, by registered mail, of the time within which he must appear before it. After such personal examinations, and after consideration of the showing made in the application, the board will rate the applicant in accordance with the scale set forth above, and place such rating in red ink, with the initials of each member of the board upon the face of the farm application blank. Should the applicant fail to appear for examination after due notice, his application will receive no further consideration by the board at that time. Should he later appear his application may be considered for any farm then remaining unassigned. The date of receipt of his application shall then be considered as being the day he actually appeared before the board. The rating necessary to establish qualification is the minimum named in Paragraph 7 of this order, and the applications of all who fail to attain this minimum shall be rejected and the applicants notified thereof by registered mail, and of the right of appeal to the Secretary within 10 days from receipt of notice. After the expiration of the appeal period and in the absence of any pending appeals, the board shall select the 69 applicants (there being 69 farm units) with the highest rating, and notify each of the other applicants that since the number of qualified applicants exceeds the number of available farms it is necessary to reject all applications below the first 69 in qualification ratings. Each rejected applicant may appeal to the Secretary within ten days. In the event that the number of qualified ap-

plicants is less than the number of available farm units, and also if in such case there are several applications for the same farm unit, the board shall assign a farm unit to each of such applicants. Whenever practicable, the board shall allow the applicants to exercise a choice of farms; and if it is found practicable to do so, the applicants will be given the right of selection, regardless of other applications, in the order of their ratings. The intent of the law is to select the best qualified applicants for the farms available, and the Government reserves the right to assign the farms regardless of individual preferences. Where two or more applicants have received identical ratings a drawing shall be made by the examining board to determine the order in which the available farms shall be awarded.

13. *Notification of applicant that he has been selected.*—After the expiration of the appeal periods in all of the contingencies named above, or any other that may arise, and in the absence of any pending appeals, the board shall notify each applicant selected for a farm, by registered mail, and enclose a water-rental application for the farm selected, which must be filled in by the applicant and returned to the superintendent within 10 days from a receipt of such notice with payment of the water-rental charges named in paragraph 18 below. Upon receipt by the project superintendent of the water-rental application, executed by the applicant and accompanied by the required payment, the board shall make appropriate notation on a copy of said water-rental application, which will entitle the applicant to file homestead application at the local land office, and the board will return said copy by registered mail to the applicant for that purpose. Such homestead application shall be made within 15 days from the date of receipt of the approved water-rental application. Failure to make homestead entry within the period named will render the application subject to rejection.

14. *Failure of selected applicant to complete transaction.*—If the applicant fails to comply with any of the requirements named above the board will select the next highest in qualification rating, and when the list has been exhausted, and if there still remain lands unallotted, the board will consider applications filed thereafter in the order filed, and such applications will otherwise be handled by the board as prescribed in Paragraph 12.

15. *General entry.*—On and after January 25, 1938, any public lands described herein, which remain unentered, shall be subject to entry under this order by any person having the necessary qualifications. If, on January 25, 1938, prior to 2 p. m., the number of applications filed exceeds the number of available farm units, then the right to make entry for any such farm unit shall be determined in accordance with the procedure described in paragraph 12 of this order.

16. *Warning against unlawful settlement.*—No person shall be permitted to gain or exercise any right under any settlement or occupation of any of said public land begun without having at the time a valid approved water-rental application covering the land in question: *Provided, however,* That this shall not affect any valid existing right obtained by settlement or entry while the land was subject thereto.

17. *Construction charges.*—Section 15 of the act of May 25, 1926 (44 Stat. 639), authorizes and directs the Secretary, when announcement is made of the construction charges for this division, to fix and allocate the construction cost per acre in accordance with the findings and recommendations of the Board of Survey and Adjustments as shown on page 26 of House Document No. 201, 69th Congress, 1st Session. As recited on page 26 of said Document No. 201, the board found that the total gross cost of construction charged to the division, as of June 30, 1925, is \$1,640,949; and that this cost should be allocated on the basis of 37,500 acres and not upon 24,200 as heretofore; and that a deduction of \$234,407 should be made from the cost named. Applying the deduction of \$234,407 would leave a remainder of \$1,406,542 and the board's report at this point recites:



"The net cost would be \$1,406,542, and this amount, divided by 37,500 acres, would give an average construction cost of \$37.50 per acre. This per acre cost of \$37.50 does not include any costs for future construction work which will be necessary to complete this division, and this should be particularly noted."

The estimate of cost to complete the works for 33,000 acres which are considered irrigable, is \$1,678,000 or a per acre cost of \$50.85. This amount added to the per acre cost to June 30, 1925, of \$37.50 would make a total per acre cost of \$88.35. A summary of the construction estimate for work after June 30, 1925, is attached to and made a part of this order. If the actual cost of future work is less than the estimate of \$1,678,000 named above, the construction charge will be proportionately reduced, but the expenditure of \$1,678,000 will not be exceeded without the water users agreeing to repay all sums in excess of this amount. In arriving at the per acre rate of \$88.35, and as shown above, the write-off of \$234,407 authorized in section 15 of the act of May 25, 1926, has been deducted from the total cost, but before this write-off may be actually accomplished, the Secretary of the Interior must require, as set forth in section 45 of the said act of May 25, 1926, a contract with a water users' association or irrigation district whereby such association or irrigation district shall be required to pay the entire charges against all productive lands within the division without regard to default in the payment of charges against any individual tract of land; also as provided in section 45 of the act named, there must be executed a contract of the character described, before the 40-year repayment plan as authorized in this section may be made effective. Since the Tule Lake Division, with the exception of a few tracts, embraces only public land it would not be possible to make such a contract until the lands are opened and entered. Under the circumstances, the division will be operated on a water-rental basis until its agricultural development has advanced sufficiently to permit of a district organization, at which time a so-called joint liability contract will be required and the construction charge will be announced at \$88.35 per acre payable over a 40-year period. Should the entrymen or water users fail, or refuse to proceed in the manner required under the act of May 25, 1926, it will become necessary to issue public notice under the Extension Act of August 14, 1914 (38 Stat. 686), without regard to the write-off and under a 20-year repayment plan. This would result in a per acre charge of \$49.70 instead of \$37.50 for the cost to June 30, 1925, which added to the per acre cost to complete of \$50.85, would fix the construction charge at \$100.55 per acre payable in 20 years.

18. *Water-rental charges.*—The minimum water-rental charge for the irrigation season of 1938 shall be one dollar and eighty cents (\$1.80) per acre for each irrigable acre of land in the farm unit, whether water is used or not, which will entitle the entryman to 2½ acre-feet of water per irrigable acre. Additional water will be furnished during the said irrigation season up to a limit of 3½ acre-feet per irrigable acre at the rate of 50 cents per acre-foot, and all further quantities for 75 cents per acre-foot, payable on December 1, 1938. Payment of the minimum charge of one dollar and eighty cents (\$1.80) per acre for the irrigation season of 1938 shall be made at the time of filing of water-rental applications: *Provided*, That when water-rental application is filed after June 15, 1938, payment shall be of a minimum charge of one dollar and eighty cents (\$1.80) per acre, which payment shall apply as a credit on the minimum charge for the following irrigation season. If payment for water used in addition to the allowance under the minimum charge is not made on or before December 1 as herein provided, there shall be added to the amount unpaid a penalty of one-half of 1 per centum thereof, and there shall be added a like penalty of one-half of 1 per centum on the first day of each month thereafter so long as such default shall continue. No water will be

delivered to the entryman in subsequent years until such charge shall have been paid in full. Future charges will be announced by future order or public notice.

19. *Place and manner of payment of water charge.*—All water charges must be paid at the office of the Bureau of Reclamation at Klamath Falls, Oregon, by cash or bank draft, cashier's check, certified check, or postal or express money order, payable to Bureau of Reclamation.

20. *Water-right application under public notice.*—Within three months after date of public notice announcing the construction charges for the land described in this order, each entryman, if required to do so by the Secretary of the Interior, shall make a formal water-right application covering his farm unit. Upon failure to do so, the Secretary may, at his option, cancel the entry in question, with all rights acquired thereunder.

21. *All land to be included in irrigation district.*—Each water-rental application for land covered by this order shall be made on Form 7-289 and the following clause shall be inserted at the bottom of said form:

"I agree to the inclusion of my land in an irrigation district and I agree also to participate in the organization of an irrigation district at the earliest practicable date."

22. *Reservation of rights of way for county highways.*—Rights of way are reserved for county highways across the farm units shown on the farm unit plats along all red lines shown on said plats, said rights of way being 30 feet in width on each side of said lines in all cases where lines are drawn in red solid lines and 60 feet in width out of the farm units crossed by lines drawn in red broken lines. Rights of way are also reserved for proposed state highway across the farm units abutting the northeasterly side of the Central Pacific Railroad Company's right of way, the said highway right of way being a strip of 100 feet in width, parallel to and touching the said railroad right of way.

23. *Effect of relinquishment prior to one-year's residence.*—In the event that any entry of public land shall be relinquished at any time prior to actual residence upon the land by the entryman for not less than one year, the lands so relinquished shall not be subject to entry for a period of 60 days after the filing and notation of the relinquishment in the local land office. During the 10-day period next succeeding the expiration of such 60-day period, any person having the necessary qualifications may file application for said public land. If, on the tenth day of said 10-day period, prior to 2 p. m. the number of applications filed exceeds the number of available farm units, then the right to make entry for such farm units shall be determined in accordance with the procedure described in paragraph 12 of this order.

24. *Waiver of mineral rights.*—All homestead entries for any of the above-described land will be subject to the laws of the United States governing mineral land and all applicants under this order must waive the right to the mineral content of the land, if required to do so by the Land Office, otherwise the homestead application will be rejected or the homestead entry cancelled.

T. A. WALTERS,  
First Assistant Secretary.

#### ESTIMATE OF COST

##### Summary of Construction Cost for New Work after June 30, 1925, to Irrigate 33,000 Acres.

Examination and surveys.....	\$12,000
Gerber Reservoir surveys.....	4,000
Cleaning and lining "A" Canal.....	26,000
Enlargement of "C" Canal.....	15,000
Enlargement of "C-G" Canal.....	12,000
Lost River Diversion Channel enlargement to 1,200 second-feet capacity.....	174,000
"J" Canal headworks, change.....	2,000
"J" Canal enlargement.....	133,000
Lateral system.....	373,000
Drainage.....	560,000



Flood protection.....	195,000
Farm units.....	12,000
Ditch riders' stations.....	12,000
Plant and equipment.....	25,000
Operation and Maintenance during construction.....	120,000
Revision of Clear Lake spillway.....	3,000

Total ..... 1,678,000

Cost per acre..... \$50.85

Cost to June 30, 1925..... 37.50

Total cost per acre..... 88.35

[F. R. Doc. 37-2900; Filed, September 29, 1937; 9:45 a. m.]

## DEPARTMENT OF AGRICULTURE.

### Farm Security Administration.

[Memorandum No. 737 (Amendment to Memorandum No. 710)]

#### APPROVAL OF LOANS TO INDIVIDUALS

SEPTEMBER 15, 1937.

Pursuant to the authority delegated to me in Executive Order No. 7530, dated December 31, 1936,<sup>1</sup> Dr. Will W. Alexander, as Administrator of the Resettlement Administration of the Department of Agriculture, and, in the event of his absence, Mr. C. B. Baldwin, as Deputy Administrator, are hereby authorized to perform on my behalf the following power and function, in addition to those authorized by Memorandum No. 710, dated February 2, 1937:

To approve the making of loans to individuals in amounts not in excess of \$10,000 for any one individual; in connection therewith to execute necessary legal instruments, to prescribe the requisite security and the terms and conditions upon which the loans will be made, and to perform such functions in connection with such loans as are specified in Administration Order 41 (Revision 1), paragraph 7b.

[SEAL]

H. A. WALLACE, *Secretary.*

[F. R. Doc. 37-2904; Filed, September 29, 1937; 12:32 p. m.]

## DEPARTMENT OF COMMERCE.

### Bureau of Air Commerce.

#### CIVIL AIR REGULATIONS

Pursuant to the authority contained in the Air Commerce Act of 1926 (44 Stat. 568) as amended, and as further amended by the Act of June 19, 1934 (48 Stat. 1113), the Act of June 19, 1934 (48 Stat. 1116), and Section 12 of the Act of June 12, 1934 (48 Stat. 933, 937), the following civil air regulations are hereby made, established, and issued to be known as

- Chapter 20. Pilot Rating
- Chapter 21. Airline Pilot Rating
- Chapter 23. Ground Instructor Rating
- Chapter 24. Mechanic Rating
- Chapter 25. Parachute Rigger Rating
- Chapter 26. Traffic Control Tower Operator Rating
- Chapter 27. Airline Dispatcher Rating
- Chapter 40. Scheduled Airline Rating (Interstate)
- Chapter 50. Flying School Rating
- Chapter 52. Aircraft Repair Station Rating
- Chapter 61. Scheduled Airline Rules

Any and all rules or regulations made, established, and issued by the Secretary of Commerce pursuant to law as are inconsistent with the provisions of the above specified civil air regulations are hereby repealed.

Approved, to take effect November 1, 1937, unless otherwise specifically provided in a particular chapter or part thereof.

[SEAL]

DANIEL C. ROPER,  
*Secretary of Commerce.*

<sup>1</sup> 2 F. R. 9 (DI).

#### 20. PILOT RATING

- 20.0 Provision for Rating
- 20.00 General Pilot Ratings
- 20.01 Special Pilot Ratings
- 20.1 General Rating Minimum Requirements
- 20.10 Student Pilot Rating
- 20.11 Solo Pilot Rating
- 20.12 Private Pilot Rating
- 20.13 Limited-Commercial Pilot Rating
- 20.14 Commercial pilot Rating
- 20.15 Student Glider Pilot Rating
- 20.16 Private Glider Pilot Rating
- 20.17 Commercial Glider Pilot Rating
- 20.2 Special Rating Minimum Requirements
- 20.20 Instructor Rating
- 20.21 Instrument Rating
- 20.3 Pilot Competency Certificate
- 20.30 Provision for Issuance
- 20.31 Application
- 20.32 Issuance
- 20.33 Display
- 20.34 Duration
- 20.35 Renewal
- 20.36 Non-Transferability
- 20.37 Suspension or Revocation
- 20.38 Surrender
- 20.39 Re-Application
- 20.4 Special Competency Rating
- 20.40 Provision for Issuance
- 20.41 Application
- 20.42 Issuance
- 20.43 Duration
- 20.44 Renewal
- 20.45 Non-Transferability
- 20.46 Suspension
- 20.47 Re-Application
- 20.5 Examinations and Tests
- 20.50 General
- 20.51 Time and Place
- 20.52 Physical Examinations
- 20.53 Aircraft Used in Tests
- 20.54 Aircraft Type Classification
- 20.55 Aircraft Weight and Engine Classification
- 20.56 Flight Area Classification
- 20.57 Inspection
- 20.58 Standard of Performance
- 20.59 Reports
- 20.6 Pilot Regulations.
- 20.60 Certificate Required
- 20.61 Carriage of Persons
- 20.62 Aircraft Type and Weight
- 20.63 Aircraft Flight Area
- 20.64 Night Flying
- 20.65 Instruction
- 20.66 Log-Books
- 20.67 Foreign Flights

#### CHAPTER 20. PILOT RATING

20.0. PROVISION FOR RATING: Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the examination and rating of airmen serving in connection with aircraft of the United States as to their qualifications for such service, pilots will be rated in accordance with the following provisions.

20.00. *General Pilot Ratings:* The general classification and rating of pilots will be based upon their hours of solo flight and the kind of aeronautical activity for which they are deemed competent. Each general rating, except student rating, will include an aircraft rating specifying the type, weight and engine classification of the aircraft which the pilot is deemed competent to fly, and a flight area rating specifying the geographical area in which he is deemed competent to pilot aircraft. The general pilot ratings will be as follows:

- (a) Student Pilot Rating
- (b) Solo Pilot Rating
- (c) Private Pilot Rating
- (d) Limited-Commercial Pilot Rating
- (e) Commercial Pilot Rating
- (f) Airline Pilot Rating (Provided for in all respects in CAR 21)
- (g) Student Glider Pilot Rating
- (h) Private Glider Pilot Rating
- (i) Commercial Glider Pilot Rating

20.01. *Special Pilot Ratings:* Special pilot ratings will be based upon satisfactory demonstration of pilot competence



as related to skill or qualification for a particular piloting activity. The special pilot ratings will be as follows:

- (a) Instructor Rating
- (b) Instrument Rating

**20.1. GENERAL RATING MINIMUM REQUIREMENTS:** To be eligible for a general pilot competency rating, an applicant shall comply with the following minimum requirements prescribed for the particular rating sought.

**20.10. Student Pilot Rating:** To be eligible for a student pilot rating, an applicant shall comply with the following minimum requirements.

**20.100. Age—**Applicant shall be at least 16 years of age. If applicant be less than 21 years of age at the time of making application, he shall submit with his application the written consent of either parent, or legal or natural guardian, to the issuance of a student pilot rating.

**20.101. Character—**Applicant shall be of good moral character.

**20.102. Citizenship—**Applicant may be a citizen of any nationality.

**20.103. Education—**Applicant shall be able to read, speak, write and understand the English language; except that a citizen of a country granting reciprocal pilot privileges to pilots of the United States on equal terms and conditions will not be required to meet the English language requirements.

**20.104. Physical Condition—**Applicant shall comply with the following minimum requirements as to physical condition: *Provided*, That the existence of a lesser grade or condition in one or more of the particulars mentioned may not disqualify the applicant if excellence in other particulars or excellence in aeronautical experience or in aeronautical skill offsets the deficiency in the opinion of the Secretary: *Provided, however*, That an increase of such deficiency, which occurs at any time within the effective period of the certificate and cannot be compensated for by some additional excellence (as in aeronautical experience or practical skill), will be ground for the revocation of such certificate:

**20.1040 (a). Eye—**Applicant shall have a visual acuity of at least 20/50 in each eye separately, without correction; provided that, if the vision in either or both eyes is poorer than 20/50 and is brought up to 20/30 or better in each such eye by glasses, the applicant may be qualified on condition that correcting glasses be worn while piloting aircraft. An average of 30 millimeters or less on the depth perception apparatus, with or without glasses, is required. If the depth perception is greater than 30 millimeters without correction and can be corrected to at least 30 millimeters by glasses, the restriction that correcting glasses be worn while piloting aircraft will apply. No diplopia will be allowed unless corrected by glasses in which case such glasses must be worn while piloting aircraft. There shall be no serious pathology of the eye.

**20.1041 (b). Ear, Nose, Throat and Equilibrium—**Applicant shall be able to hear the whispered voice at three feet; shall have no acute or chronic disease of the internal ear, no disease or malformation of the nose or throat which may interfere with or be aggravated by flying, and no disturbance in equilibrium.

**20.1042. (c). General Physical Condition—**Applicant shall have no organic or functional disease or structural defect or limitation which might interfere with the safe piloting of aircraft.

**20.1043. (d). Nervous System—**Applicant shall have no disease of the mental or nervous system and no abnormality of the personality.

**20.105. Aeronautical Knowledge—**No minimum requirement is prescribed but, prior to his first solo flight, applicant shall be familiar with the provisions of CAR 60, and such fact shall be certified to by his instructor in accordance with the requirements of CAR 20.652.

**20.106. Aeronautical Experience—**No minimum requirement.

**20.107. Aeronautical Skill—**No minimum requirement is prescribed but, prior to his first solo flight, applicant shall have had a minimum of 8 hours dual flight instruction and shall have been deemed, in the opinion of his instructor, competent to make such flight, and such competence shall be certified to by his instructor on the student pilot certificate in the place provided therefor. The date of such flight and the type, weight and engine classification of the aircraft so flown shall also be certified by the instructor in the same manner.

**20.11. Solo Pilot Rating:** To be eligible for a solo pilot rating, an applicant shall comply with the following minimum requirements.

**20.110. Age—**Same as in CAR 20.100.

**20.111. Character—**Same as in CAR 20.101.

**20.112. Citizenship—**Same as in CAR 20.102.

**20.113. Education—**Same as in CAR 20.103.

**20.114. Physical Condition—**Same as in CAR 20.104.

**20.115. Aeronautical Knowledge—**Applicant shall be familiar with and accomplish satisfactorily a written examination on so much of the provisions of CAR 00, 01, 02, 03, 20, 30, 60, 91, 94 and 98, as are pertinent to his rating.

**20.116. Aeronautical Experience—**Applicant shall have logged at least 5 hours of solo flight time, of which at least 3 hours shall have been logged within the 60 days last preceding the date of filing the application: *Provided, however*, That a graduate of the solo pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation.

**20.117. Aeronautical Skill—**Applicant shall demonstrate satisfactorily his ability to pilot aircraft in solo flights including normal take-offs, turns and landings.

**20.12. Private Pilot Rating:** To be eligible for a private pilot rating, an applicant shall comply with the following minimum requirements:

**20.120. Age—**Same as in CAR 20.100.

**20.121. Character—**Same as in CAR 20.101.

**20.122. Citizenship—**Same as in CAR 20.102.

**20.123. Education—**Same as in CAR 20.103.

**20.124. Physical Condition—**Same as in CAR 20.104.

**20.125. Aeronautical Knowledge—**Same as in CAR 20.115 and, in addition, applicant shall satisfactorily accomplish a written examination covering prevailing weather conditions in the United States as encountered in flying, and the forecasting thereof, the analyzing of weather maps and sequence reports as furnished by the United States Weather Bureau, practical air navigation problems and the use of maps, and navigation by terrain (pilotage) and by dead reckoning, including the use of instruments and other aids to navigation in visual contact flying.

**20.126. Aeronautical Experience—**Applicant shall have logged at least 35 hours of solo flight time, of which at least 5 hours shall have been logged within the 60 days last preceding the date of filing the application: *Provided, however*, That a graduate of the private pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation. As part of the foregoing, applicant shall have logged at least 5 hours of solo cross-country flying which shall include at least one flight over a course of not less than 50 miles with at least 2 full stop landings at different points on such course. Such experience shall be certified to by some person, other than the applicant, having direct knowledge of the same.

**20.127. Aeronautical Skill—**Applicant, for rating on heavier-than-air aircraft of a land or water type, exclusive of gliders, shall demonstrate satisfactorily his ability to pilot an aircraft in solo flight and, in addition to normal take-offs, turns and landings, to perform satisfactorily the following maneuvers:

**20.1270 (a).** From 1,500 feet, with engine throttled, a 360° turn and a landing in normal landing attitude, the wheels touching the ground beyond and within 300 feet of a line or point designated by the examining Bureau inspector.



20.1271 (b). From 1,000 feet, with engine throttled, a 180° turn and a landing in normal landing attitude, the wheels touching the ground beyond and within 300 feet of a line or point designated by the examining Bureau inspector.

20.1272 (c). A series of 3 shallow and 3 steep figure 8 turns, and one 720° steep power turn in each direction. During these maneuvers, the pilot shall not gain or lose more than 200 feet of altitude.

20.1273 (d). A spiral in one direction from 2,000 feet, with engine throttled, and a landing in normal landing attitude, the wheels touching the ground beyond and within 300 feet of a line or point designated by the examining Bureau inspector.

20.1274 (e). A right hand and a left hand spin, each of at least one full turn.

20.1275 (f). Emergency maneuvers such as spirals, side slips and climbing turns, and recovery from stalls and such other maneuvers as the examining Bureau inspector may deem necessary and appropriate to demonstrate the competence of the applicant for the rating sought.

20.128. Aeronautical Skill on Other Types—Applicant, for rating on aircraft other than gliders or conventional heavier-than-air aircraft of a land or water type, shall demonstrate satisfactorily his ability to pilot an aircraft of such other type in solo flight and, in addition to normal take-offs and landings, shall perform such other maneuvers as the examining Bureau inspector may deem necessary and appropriate to demonstrate the competence of the applicant.

20.13. Limited-Commercial Pilot Rating: To be eligible for a limited-commercial pilot rating, an applicant shall comply with the following minimum requirements:

20.130. Age—Applicant shall be at least 18 years of age.

20.131. Character—Same as in CAR 20.101.

20.132. Citizenship—Applicant shall be

20.1320 (a). A citizen of the United States, or

20.1321 (b). A citizen of a foreign country which grants reciprocal commercial pilot privileges to citizens of the United States on equal terms and conditions with citizens of such foreign country, or

20.1322 (c). An alien who has filed his declaration of intention to become a citizen of the United States and notifies the Secretary of the serial number of such declaration and of the date thereof and of the court in which it is filed; *provided*, that the certificate of competency is, in such case, subject to revocation if the holder does not from time to time keep the Secretary advised of the status of the proceedings in court and does not diligently and successfully prosecute them and become admitted as a citizen.

20.133. Education—Applicant shall be able to read, speak, write and understand the English language.

20.134. Physical Condition—Applicant shall comply with the following minimum requirements as to physical condition: *Provided*, That the existence of a lesser grade or condition in one or more of the particulars mentioned may not disqualify the applicant if excellence in other particulars or excellence in aeronautical experience or in aeronautical skill offsets the deficiency, in the opinion of the Secretary: *Provided, however*, That an increase of such deficiency, which occurs at any time within the effective period of the certificate and cannot be compensated for by some other excellence (as in aeronautical experience or practical skill), will be ground for the revocation of such certificate:

20.1340 (a). Eye—Applicant shall have a visual acuity of at least 20/20 in each eye separately without correction; an average depth perception of 30 millimeters or less without correction; no diplopia; not more than 1 diopter of hyperphoria; properly balanced eye muscles with an abduction of 3 diopters or more; sufficient accommodation to pass a Bureau test based primarily upon ability to read official aeronautical maps; normal fields of vision, and no pathology of the eye.

20.1341 (b). Ear, Nose, Throat and Equilibrium—Applicant shall be able to hear the whispered voice at eight feet with each ear separately; shall have no acute or chronic disease of the middle or internal ear; no disease of the mastoid; no

unhealed perforations of the ear drum; no disease or malformation of the nose or throat which may interfere with or be aggravated by flying, and no disturbance of equilibrium.

20.1342 (c). General Physical Condition—Same as in CAR 20.1042.

20.1343 (d). Nervous System—Same as in CAR 20.1043.

20.135 Aeronautical Knowledge—Same as in CAR 20.125 and, in addition, applicant shall satisfactorily accomplish a written examination on the theory and the practice of flight and the maintenance of aircraft, and on the maintenance and proper use of aircraft power units in common use.

20.136. Aeronautical Experience—Applicant shall have logged at least 60 hours of solo flight time, of which at least 5 hours shall have been logged within the 60 days last preceding the date of filing the application, *Provided, however*, That a graduate of the limited-commercial pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation. Solo cross-country flying time as provided in CAR 20.126.

20.137. Aeronautical Skill—Same as in CAR 20.127 except as follows:

20.1370 (a). In the maneuvers required by CAR 20.1270, CAR 20.1271 and CAR 20.1273, the wheels shall touch the ground beyond and within 250 feet of the line or point designated.

20.1371 (b). In the maneuvers required by CAR 20.1272, the pilot shall not gain or lose more than 150 feet.

20.1372 (c). In the spins required by CAR 20.1274, the applicant shall perform a 2-turn spin in each direction with an error of not more than plus or minus ¼ turn.

20.138. Aeronautical Skill on Other Types—Same as in CAR 20.128.

20.14. Commercial Pilot Rating: To be eligible for a commercial pilot rating, an applicant shall comply with the following minimum requirements:

20.140. Age—Same as in CAR 20.130.

20.141. Character—Same as in CAR 20.101.

20.142. Citizenship—Same as in CAR 20.132.

20.143. Education—Same as in CAR 20.133.

20.144. Physical Condition—Same as in CAR 20.134.

20.145. Aeronautical Knowledge—Same as in CAR 20.135 except that the examinations will be more searching and in greater detail.

20.146. Aeronautical Experience—Applicant shall have logged at least 200 hours of solo flight time, of which at least 5 hours shall have been logged within the 60 days last preceding the date of filing the application: *Provided, however*, That a graduate of the commercial pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation. As part of the foregoing applicant shall have logged at least 10 hours of solo cross-country flying, which shall include at least one flight over a course of not less than 100 miles with at least three full stop landings at different points on such course. Such experience shall be certified to by some person, other than the applicant, having direct knowledge of the same.

20.147. Aeronautical Skill—Same as in CAR 20.127 except as follows:

20.1470 (a). In the maneuvers required by CAR 20.1270, CAR 20.1271 and CAR 20.1273, the wheels shall touch the ground within 200 feet beyond the line or point designated.

20.1471 (b). In the maneuvers required by CAR 20.1272, the pilot shall not gain or lose more than 100 feet.

20.1472 (c). Applicant shall complete the spins required in CAR 20.1372 except that the permissible error shall be plus or minus ten degrees.

20.148. Aeronautical Skill on Other Types—Same as in CAR 20.128.

20.15. Student Glider Pilot Rating: To be eligible for a student glider pilot rating, an applicant shall comply with the following minimum requirements.

20.150. Age—Applicant shall be at least 14 years of age.

20.151. Character—Same as in CAR 20.101.



20.152. Citizenship—Same as in CAR 20.102.

20.153. Education—Same as in CAR 20.103.

20.154. Physical Condition—Applicant shall certify that to the best of his knowledge and belief he has no physical defect which renders him incompetent to pilot a glider.

20.155. Aeronautical Knowledge—No minimum requirements.

20.156. Aeronautical Experience—No minimum requirements.

20.157. Aeronautical Skill—No first solo flight shall be made by a student glider pilot until, in the opinion of his instructor, the student is deemed competent to make such solo flight.

20.16. *Private Glider Pilot Rating*: To be eligible for a private glider pilot rating, an applicant shall comply with the following minimum requirements:

20.160. Age—Same as in CAR 20.150.

20.161. Character—Same as in CAR 20.101.

20.162. Citizenship—Same as in CAR 20.102.

20.163. Education—Same as in CAR 20.103.

20.164. Physical Condition—Same as in CAR 20.154.

20.165. Aeronautical Knowledge—No minimum requirements.

20.166. Aeronautical Experience—No minimum requirements.

20.167. Aeronautical Skill—Applicant shall demonstrate satisfactorily his ability to pilot a glider and to make normal take-offs and landings, a series of moderate banks, and such other maneuvers as the examining Bureau inspector may deem necessary and appropriate to demonstrate the competence of the applicant for the rating sought.

20.17. *Commercial Glider Pilot Rating*: To be eligible for a commercial glider pilot rating, an applicant shall comply with the following minimum requirements:

20.170. Age—Applicant shall be at least 18 years of age.

20.171. Character—Same as in CAR 20.101.

20.172. Citizenship—Same as in CAR 20.132.

20.173. Education—Same as in CAR 20.133.

20.174. Physical Condition—Same as in CAR 20.104.

20.175. Aeronautical Knowledge—Same as in CAR 20.115.

20.176. Aeronautical Experience—Applicant shall have completed 25 gliding flights of which at least 5 flights shall have been made within the 60 days last preceding the date of filing the application.

20.177. Aeronautical Skill—Same as in CAR 20.167 and, in addition, 360° turns will be required.

20.2. *SPECIAL RATING MINIMUM REQUIREMENTS*: To be eligible for a special pilot competency rating, an applicant shall comply with the following minimum requirements prescribed for the particular rating sought:

20.20. *Instructor Rating*: To be eligible for an instructor rating, an applicant shall comply with the following minimum requirements:

20.200. Age—Same as in CAR 20.130.

20.201. Aeronautical Knowledge—Applicant shall have practical and theoretical knowledge of flight instruction and shall accomplish a satisfactory written and practical examination thereon.

20.202. Aeronautical Experience—Applicant shall be possessed of a valid commercial or private pilot rating, provided that in the latter case he meets the requirements of CAR 20.146.

20.203. Aeronautical Skill—Applicant shall satisfactorily accomplish a practical flight test as to his ability to perform with precision and teach properly such fundamental flight maneuvers as are, in the opinion of the Secretary, deemed necessary and appropriate for safe and sound instruction in the safe piloting of aircraft.

20.21. *Instrument Rating*: To be eligible for an instrument rating, an applicant shall comply with the following minimum requirements:

20.210. Aeronautical Knowledge—Applicant shall be familiar with the use of such instruments and other navigational aids, both in aircraft and on the ground, as are deemed by

the Secretary to be necessary for the navigation of aircraft by instruments, and with meteorology as applied to weather analysis and forecasting, and the applicant shall satisfactorily accomplish a written examination thereon.

20.211. *Aeronautical Experience*—Applicant shall have logged at least 200 hours of solo flight time as prescribed in CAR 20.146, including a minimum of at least 20 hours of instrument flying instruction and practice, and shall be possessed of a valid private, limited-commercial or commercial pilot rating. In lieu of not to exceed 10 hours of the foregoing 20-hour requirement applicant may show an equal or greater amount of instruction and practice under suitable conditions approved by the Secretary. Applicant shall also be possessed of a valid and appropriate radio license issued by the Federal Communications Commission.

20.212. *Aeronautical Skill*—Applicant shall satisfactorily accomplish, solely by instruments, a flight test with respect to the following:

20.2120 (a). Straight level flight for a given period of time.

20.2121 (b). Moderately banked 180° and 360° turns in both directions.

20.2122 (c). Minimum glides and maximum climbs, and approaches to stalled attitudes of flight.

20.2123 (d). Climbing turns.

20.2124 (e). Recovery from stalls, skids, slips and spirals, and from banks in excess of 45°.

20.2125 (f). Such other maneuvers as the examining inspector deems necessary.

20.2126 (g). A practical demonstration, while in flight or under simulated conditions, of estimating arrival time, taking into account speed, wind and drift.

20.213. *Radio Skill*—Applicant shall satisfactorily accomplish, solely by instruments, a flight test with respect to the following:

20.2130 (a). Tuning radio.

20.2131 (b). Orientation.

20.2132 (c). Following radio range.

20.2133 (d). Locating cone of silence.

20.2134 (e). Letting-down-through on the range by the approved instrument approach procedure for the particular airport used in connection with the test.

20.2135 (f). Such other maneuvers as the examining inspector deems necessary.

### 20.3. PILOT COMPETENCY CERTIFICATE

20.30. *Provision for Issuance*: An appropriate pilot certificate of competency will be issued by the Secretary to a natural person who is an applicant therefor, after approval of an application made and proofs submitted in connection therewith and if upon inspection and examination such applicant is found by the Secretary to meet the appropriate minimum requirements prescribed in CAR 20.1. Holders of valid pilot licenses, except student licenses, may pilot aircraft pursuant to such authority until the expiration thereof. Holders of valid student pilot licenses may pilot aircraft pursuant to such authority until the expiration thereof or for 6 months after the effective date of these regulations, whichever is the shorter period. Upon the expiration of each pilot license as just set forth the holder, upon meeting the requirements for the renewal or re-issuance thereof and for any ratings held, may have issued to him the following certificates and ratings:

(a) If the holder of a student license, a *solo certificate*, provided he has logged at least 5 hours of certified solo flying time and makes application within the effective period of his license. If the holder of a student license with no or less than 5 hours solo flying time, a *student certificate*, which may be issued by a duly authorized Bureau inspector: *Provided*, That application is made within the effective period of such license and a satisfactory physical examination shown, as provided for in CAR 20.104, within the 6 months immediately preceding application for such student certificate: *And, provided, further*, That such student certificate shall expire one year from the date of



said physical examination. Otherwise CAR 20.10 and 20.60 shall apply.

(b) If the holder of an amateur license, a solo certificate.

(c) If the holder of a private, limited-commercial or transport license, a private, limited-commercial or commercial certificate respectively, plus an instrument rating if a non-scheduled instrument rating is held and, in the case of the commercial pilot certificate, an instructor rating whether or not a flying instructor's rating is held.

**20.300. Aircraft Rating**—The type, weight and engine classification of the aircraft (except unconventional aircraft) which the applicant is deemed competent to pilot will be entered upon the pilot certificate. (See CAR 20.54 and 20.55.)

**20.301. Flight Area Rating**—When limited, the geographical area in which the applicant is deemed competent to pilot the aircraft provided for in CAR 20.302 will be entered upon the pilot certificate. (See CAR 20.56.)

**20.302. Special Rating**—When issued to an applicant, as provided for in CAR 20.2 and 20.4, any special rating will be entered upon his pilot certificate.

**20.303. Identification Card**—An appropriate pilot identification card will be issued in connection with a pilot certificate, in the discretion of the Secretary.

**20.31. Application**: Application for a pilot certificate of competency, subscribed under oath, shall be made to the Secretary upon a form supplied for the purpose.

**20.310. Application to Amend**—When any change in a pilot competency rating is desired, whether affecting the general or special ratings, the applicant shall file a written request therefor with the Secretary upon a form supplied for the purpose.

**20.311. Proceeding to Amend**—A proceeding to amend a pilot competency rating, whether general or special, may be instituted by the Secretary when, in his opinion, the pilot is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding shall be addressed to the pilot with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.

**20.32. Issuance**: Upon approval of an application duly made, proofs submitted and examinations and tests satisfactorily completed, a pilot certificate of competency will be issued in an appropriate form.

**20.320. Temporary Certificate**—Following application made for a pilot certificate of competency, but prior to approval thereof and issuance of the certificate, a temporary pilot certificate may be issued by the examining Bureau inspector. A temporary student pilot certificate may be issued by a medical examiner authorized by the Secretary for such purpose.

**20.33. Display**: A pilot certificate of competency shall be kept in the personal possession of the pilot at all times when piloting aircraft, and shall be presented for inspection upon the demand of any passenger, of any authorized official or employee of the Department of Commerce and of any State or municipal official charged with the duty of enforcing local laws or regulations involving Federal compliance, or upon the reasonable request of any other person.

**20.34. Duration**: A pilot certificate of competency, unless sooner suspended or revoked in accordance with the provisions of CAR 20.37, will remain in force for the following periods, for the respective kinds of certificate:

- 20.340 (a). Student pilot—1 year
- 20.341 (b). Solo pilot—1 year
- 20.342 (c). Private pilot—1 year
- 20.343 (d). Limited-commercial pilot—6 months
- 20.344 (e). Commercial pilot—6 months
- 20.345 (f). Airline pilot—6 months (See CAR 21)
- 20.346 (g). Student Glider pilot—1 year
- 20.347 (h). Private glider pilot—1 year
- 20.348 (i). Commercial glider pilot—1 year

**20.35. Renewal**: The term of a pilot certificate (other than a student pilot or student glider pilot certificate) may

be renewed, for a like period as the original certificate, upon application within 45 days prior to expiration and upon satisfactory showing of the following facts with respect to the kinds of certificates issued:

- 20.3500 (a). Student pilot—Not renewable
- 20.3501 (b). Solo pilot—

(1) 15 hours of solo flight, in aircraft of each type, weight and engine classification for which renewal is sought, within the year preceding expiration, and

(2) a satisfactory physical examination, completed within the 9 months preceding expiration, in accordance with the provisions of CAR 20.104.

**20.3502 (c). Private pilot**—Same as in CAR 20.351 except that the physical examination provided for shall have been completed within the 14 months preceding expiration.

**20.3503 (d). Limited-commercial pilot**

(1) 10 hours of solo flight, in aircraft of each type, weight and engine classification for which renewal is sought, within the 6 months preceding expiration, and

(2) a satisfactory physical examination, completed within the 60 days preceding expiration, in accordance with the provisions of CAR 20.134.

**20.3504 (e). Commercial pilot**—Same as in CAR 20.353.

**20.3505 (f). Airline pilot**—See CAR 21.

**20.3506 (g). Student glider pilot**—Not renewable.

**20.3507 (h). Private glider pilot**—10 gliding flights, or one soaring flight of one hour, within the year preceding expiration.

**20.3508 (i). Commercial glider pilot**—Same as in CAR 20.356, together with a satisfactory physical examination completed within the 60 days preceding expiration, in accordance with CAR 20.104.

**20.3509. Reinstatement**—In the event of an emergency which prevents renewal prior to expiration, and upon a showing thereof satisfactory to the Secretary, the applicant may have his pilot certificate validated in accordance with the provisions for renewal in CAR 20.35, provided the flight tests appropriate to the rating are again satisfactorily accomplished. The date of application for reinstatement rather than the expiration date of the certificate shall be controlling in applying CAR 21.35. There shall be but one application for reinstatement following a given lapse.

**20.3510. Re-Rating after Lapse**—Within 6 months after the expiration date of a private, limited-commercial or commercial pilot certificate the holder thereof may have issued to him a solo pilot certificate upon application therefor and a satisfactory showing to the Secretary of physical competency as provided in CAR 20.351 (2), and of 5 hours of certified solo flying time logged by the applicant within the year preceding application in aircraft of each type, weight and engine classification for which the solo pilot certificate is sought.

**20.36. Non-Transferability**: A pilot certificate of competency is not transferable.

**20.37. Suspension or Revocation**: The following rules will govern the suspension or revocation of pilot competency certificates.

**20.370. Automatic Invalidation**—Any physical deficiency, or any increase in physical deficiency, which occurs at any time within the effective period of a pilot certificate and which is not compensated for by some additional excellence as provided for in CAR 20.104 and 20.134, will automatically cause the pilot certificate to become invalid for the period of such physical deficiency.

**20.371. General Grounds**—A pilot certificate of competency may be suspended or revoked by reason of any of the following on the part of the holder thereof:

**20.37100 (a).** Any false statement in an application for a certificate or in any report required by the Secretary.

**20.37101 (b).** Use or display of the certificate for any fraudulent purpose.

**20.37102 (c).** Refusal to exhibit the certificate upon proper demand.



20.37103 (d). Unsound physical or mental condition.  
20.37104 (e). Any demonstration of incompetency in the piloting of aircraft.

20.37105 (f). Failure to wear correcting lenses when required.

20.37106 (g). Being under the influence of, or using or having personal possession of, intoxicating liquor, cocaine or other habit-forming drugs while on duty.

20.37107 (h). Carrying any passenger who is obviously under the influence of intoxicating liquor, cocaine or other habit-forming drugs.

20.37108 (i). Carelessness or inattention to duty affecting safety.

20.37109 (j). Performance of any act in connection with aircraft which is contrary to the public safety or interest.

20.37110 (k). Violation of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

20.38. *Surrender*: Upon notice from the Secretary of the suspension or revocation of a pilot certificate, the holder thereof shall immediately return such certificate to the Secretary.

20.39. *Re-Application*: The following rules will govern the re-application for pilot competency certificates:

(a) An applicant for a solo, private glider or commercial glider pilot certificate who has failed to successfully accomplish any prescribed theoretical or practical examination or test may apply for re-examination in any such subject at any time after the expiration of 45 days from the date of such failure.

(b) An applicant for a private, limited-commercial or commercial pilot certificate who has failed to successfully accomplish any prescribed theoretical or practical examination or test may apply for re-examination at any time after the expiration of 90 days from the date of such failure, provided he shows at least 15 additional hours of certified flying time logged by him.

#### 20.4. SPECIAL COMPETENCY RATING

20.40. *Provision for Issuance*: An appropriate special competency rating will be issued by the Secretary, upon approval of application made and satisfactory proofs submitted, to a natural person who, upon inspection and examination, is found by the Secretary to meet the appropriate minimum requirements prescribed in CAR 20.2.

20.41. *Application*: Same as in CAR 20.31 applied to a special rating.

20.42. *Issuance*: Any special rating issued to a pilot will be entered or indicated at the proper place therefor on the pilot certificate of competency.

20.43. *Duration*: A special rating, unless sooner suspended or revoked in accordance with the provisions of CAR 20.46, will remain in force for the effective period of the particular pilot certificate held.

20.44. *Renewal*: Renewal of a special rating may be effected upon application therefor within 45 days prior to the expiration of the pilot certificate and upon satisfactory showing of the following facts with respect to the kind of rating held:

20.440. *Instructor Rating*—The requirements appropriate for renewal of private or commercial pilot certificates as provided in CAR 20.35, as the case may be, and a satisfactory showing that the applicant has served as an instructor for not less than 10 hours during the preceding 6 months. The holder of such rating may be required to undergo a re-examination in any of the tests prescribed for the original rating at such times as the Secretary deems necessary.

20.441. *Instrument Rating*—Applicant shall have logged:

20.4410 (a). If holder of a private pilot certificate—10 hours of flying solely by instruments within the year preceding the expiration of the pilot certificate, 5 hours of which shall have been within 6 months thereof.

20.4411 (b). If holder of a limited-commercial or commercial pilot certificate—5 hours of flying solely by instruments within the 6 months preceding the expiration date of the certificate.

20.4412 (c). In lieu of not to exceed 50% of either of the above requirements applicant may show an equal or greater amount of practice under simulated conditions approved by the Secretary.

20.442. *Reinstatement*—In the event of an emergency which prevents renewal of any of the foregoing special ratings prior to expiration, and upon a showing thereof satisfactory to the Secretary, the applicant may have his rating or ratings validated in accordance with the appropriate provisions for renewal in CAR 20.440 through 20.441, as the case may be, provided the flight tests appropriate to the particular rating are satisfactorily accomplished. The date of application for reinstatement rather than the expiration date of the rating shall be controlling in applying CAR 20.440 through 20.441. There shall be but one application for reinstatement following a given lapse.

20.45. *Non-Transferability*: A special rating is not transferable.

20.46. *Suspension or Revocation*: A special rating may be suspended or revoked by reason of the suspension or revocation of the pilot certificate or by reason of any of the following, on the part of the holder thereof:

20.460 (a). Any false statement in an application for a pilot rating.

20.461 (b). Unsound physical or mental condition.

20.462 (c). Any demonstration of incompetency in piloting aircraft, particularly as related to any given rating.

20.463 (d). Violation of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

20.47. *Re-Application*: An applicant for a special competency rating who has failed to successfully accomplish any prescribed test for such rating may apply for re-examination thereon after the expiration of 30 days from the date of such failure.

#### 20.5. EXAMINATIONS AND TESTS

20.50. *General*: The examinations and tests prescribed in the foregoing regulations (both for pilot certificates of competency and for the ratings issued with respect thereto) will be conducted by an authorized officer or employee of the Bureau or by a properly qualified person designated for the purpose by the Secretary.

20.51. *Time and Place*: All examinations and tests will be held at such times and places as the Secretary may designate.

20.52. *Physical Examinations*: The following rules will govern the physical examinations given in connection with the original issuance of any pilot competency certificate:

20.520 (a). The appropriate physical examination prescribed shall be accomplished before any practical or theoretical test or other examination will be given, and shall be completed within the 9 months preceding application for a solo or private rating, or within the 4 months preceding application for a limited-commercial or commercial pilot rating.

20.521 (b). In lieu of a physical examination conducted by authority of the Secretary, a certified copy of the medical examination for flying in the United States Army, Navy, or Marine Corps, made within the 60 days preceding the date of filing application for a pilot certificate, will be accepted for any pilot rating: *Provided*, That the physical qualifications as shown in such prior examination are not less than those required by these regulations for the kind of pilot certificate of rating applied for.

20.522 (c). A pilot holding a certificate of a lower grade and applying for a certificate of a higher shall pass satisfactorily a new physical examination for the grade applied for unless his prior physical examination was for higher grade and was passed within the time limit prescribed in CAR 20.520.

20.53. *Aircraft Used in Tests*: The applicant shall furnish a certificated aircraft for any flight test involved. Each such aircraft, used in any test for a pilot certificate above the grade of solo pilot, shall be equipped with dual controls and shall accommodate the applicant, the inspector and parachutes for both. Aircraft having only one elevator and aileron control for two seats, or any arrangement whereby



all flight and engine controls cannot be handled in a normal or conventional manner from either seat are not considered as having dual controls for the purpose of flight tests for pilot ratings.

20.54. *Aircraft Type Classification:* For purposes of specifying the types of aircraft which the applicant is deemed competent to pilot and for convenience of examining the applicant with respect thereof, the following aircraft type classification is prescribed:

- (a) Conventional airplane (land or water)
- (b) Unconventional airplane (land or water)
- (c) Rotorplane (land or water)
- (d) Glider
- (e) Aerostat.

20.540. Unconventional aircraft which the applicant is deemed competent to fly will be specified on his pilot certificate by make and model designation only.

20.55. *Aircraft Weight and Engine Classification:* For purposes of specifying the weight and power-plant equipment of aircraft which the applicant is deemed competent to pilot, and for convenience of examining the applicant with respect thereto, the following aircraft weight and engine classification is prescribed:

- (a) Class 1—Gross weight not more than 1,500 pounds.
- (b) Class 2S—Gross weight between 1,500 and 4,000 pounds, single-engine.
- (c) Class 2M—Gross weight between 1,500 and 4,000 pounds, multi-engine.
- (d) Class 3S—Gross weight between 4,000 and 10,000 pounds, single-engine.
- (e) Class 3M—Gross weight between 4,000 and 10,000 pounds, multi-engine.
- (f) Class 4S—Gross weight between 10,000 and 25,000 pounds, single-engine.
- (g) Class 4M—Gross weight between 10,000 and 25,000 pounds, multi-engine.
- (h) Class 5—Gross weight in excess of 25,000 pounds.

20.550. The holder of a valid private, limited-commercial or commercial pilot certificate may pilot conventional aircraft of a similar type (seaplane, landplane, etc.) and of an equal or lower weight and/or engine classification than as specified on such pilot certificate, except for the carriage of persons or property for hire.

20.56. *Flight Area Classification:* For purposes of specifying the geographical limits within which the applicant is deemed competent to pilot aircraft, the following flight area classification is prescribed.

(a) *Limited*—in which case the radius from the base of aircraft operations within which the pilot is deemed competent to pilot shall be within 10 miles for piloting of aircraft carrying persons for hire, and the name of the particular base will be set forth in the pilot certificate, provided that upon 10 days notice to and approval by the Secretary, said area specified in the certificate issued to a limited-commercial pilot may be changed to a different area.

(b) *Unlimited*—in which case the pilot is deemed by the Secretary to be competent to pilot aircraft without restriction as to geographical limits. Such rating relates only to the competency of the pilot and, of itself, will only authorize the applicant to pilot aircraft in the airspace over those geographical areas (other than airspace reservations and other prohibited areas) wherein the pilot certificate is accorded official recognition as valid and effective.

20.57. *Inspection:* The applicant for a pilot certificate of competency shall offer full cooperation with respect to any inspection or examination which may be made of such applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of a pilot certificate of competency.

20.58. *Standard of Performance:* Every practical and theoretical examination and test shall be accomplished to the

satisfaction of the Secretary and the minimum passing grade in the subject of examination and test shall be 70 per cent. Each flight maneuver will be graded separately. Other examinations will be graded as a whole.

20.59. *Reports:* The person giving any examination or test in behalf of the Secretary shall report the result thereof upon an appropriate form to the Secretary and all data collected incident to such examination or test shall be considered as of a confidential nature by all persons conducting such examinations or tests and by all employees of the Department of Commerce.

#### 20.6. PILOT REGULATIONS

20.60. *Certificate Required:* No person shall pilot a civil aircraft on a civil airway, or in interstate or foreign air commerce elsewhere, unless possessed of a valid pilot certificate of competency or, if an alien, possessed of a similar pilot certificate or permit, issued or validated according to the provisions of CAR 65. Accordingly, no person shall make a solo flight of civil aircraft on a civil airway, or in interstate or foreign air commerce elsewhere, unless possessed of such certificate, but, prior to such solo flight, no pilot certificate will be required of a person who is flying with a certificated instructor in an aircraft equipped with fully functioning dual controls as provided in CAR 20.53, and provided further, that said instructor is in full charge of one set of said controls. Even then such flights shall be only for instruction or the demonstration of the aircraft to a bona fide prospective purchaser thereof.

20.61. *Carriage of Persons:* The following rules will govern the carriage of persons in aircraft in flight:

20.160. *Student*—No person possessed of a valid student pilot certificate or receiving dual instruction shall carry in any aircraft in flight any property or any person other than a certificated instructor. No person who has not attained the age of 16 years shall receive dual instruction in any aircraft.

20.611. *Solo Pilot*—No person possessed of a valid solo pilot certificate shall carry, for or without hire, any person or property in any aircraft in flight.

20.612. *Private Pilot*—No person possessed of a valid private pilot certificate shall carry any property or any person for hire in any aircraft in flight.

20.613. *Limited-Commercial Pilot*—No person possessed of a valid limited-commercial pilot certificate shall carry any person for hire in any aircraft in flight outside or beyond the geographical limits specified in his pilot certificate: *Provided*, That such person may demonstrate aircraft in flight outside the geographical limits of such area to prospective purchasers: *Provided, also*, That such person may carry guests, executives or employees of the company employing him, beyond the geographical limits of such area if no additional payment be made for such carriage: *Provided, further*, That such person may serve as second pilot beyond the geographical limits of such area if accompanied by a person possessed of a valid commercial pilot certificate who is in command of such aircraft.

20.614. *Commercial Pilot*—No person possessed of a valid commercial pilot certificate shall carry any persons or property in scheduled airline service in interstate or foreign air commerce, unless possessed of a valid instrument rating.

20.615. *Glider Pilot*—No person shall pilot a glider for any commercial purpose unless possessed of a valid commercial glider pilot certificate.

20.62. *Aircraft Type and Weight:* No person shall pilot for hire, or carry any person for or without hire other than a properly certificated instructor in, an aircraft of a type, weight or engine classification other than as specified in his pilot certificate.

20.63. *Aircraft Flight Area:* No person shall pilot an aircraft carrying any person for hire beyond the geographical limits of the flight area specified in his pilot certificate, except as provided in CAR 20.613.

20.64. *Night Flying:* A commercial, limited-commercial or private pilot who has not had at least 2 hours of night solo flying within the last preceding 90 days shall not pilot air-



craft carrying passengers between sunset and sunrise until after he has taken off and landed, between sunset and sunrise, at least 10 times, nor unless at least 3 of such landings were made to a full stop.

20.65. *Instruction*: The following rules will govern the giving of flight instructions:

20.650. *Rating Required*—No person shall give flying instruction for hire to any other person unless possessed of a valid commercial certificate and a valid instructor rating, or, in case of instruction of glider students, unless possessed of a valid commercial glider pilot certificate. Instruction not for hire may be given by the holder of a valid commercial or private pilot certificate and a valid instructor rating.

20.651. *Solo Flight Authorization*—No instructor shall authorize, or knowingly permit any person to whom he has given flying instruction to make, any solo flight on a civil airway or in interstate or foreign air commerce elsewhere, unless such person is possessed of a valid pilot certificate.

20.652. *Aeronautical Knowledge Certification*—No instructor shall authorize, or knowingly permit any person to whom he has given flying instruction to make a first solo flight on a civil airway, or in interstate or foreign air commerce elsewhere, until he has examined such student as to his knowledge of the provisions of CAR 60 and until such student shows a satisfactory knowledge thereof, which facts shall be certified to by such instructor on the student pilot certificate.

20.653. *Time Limitations*—No instructor shall give more than 6 hours of dual flying instruction in any one day, nor more than 6 days of such instruction in any one week.

20.654. *Flying Instruction Time Entries*—No instructor shall give flying instruction unless, immediately following each period of such instruction, he makes in the log-book of his student the appropriate certified entries as provided in CAR 20.661.

20.66. *Log-Books*: The following rules will govern pilot log-books:

20.660. *General*—Every certificated pilot and every person receiving flying instruction shall keep an accurate record of his flying time in a log-book in which the entries with respect to dual instruction have been certified by a certificated instructor and the entries with respect to solo flying time have been certified to by him before a notary public.

20.661. *Contents*—The log-book shall contain the date of flight, the type of aircraft flown, the aircraft certificate number, a statement of instrument and night flying time, the duration of the flight, and the points between which such flight was made, and when any flight results in serious damage to the aircraft, a notation to this effect. Flying instruction time shall be logged in the same manner and, in addition, the instructor shall make complete entries in the log-book of his student showing the nature of each maneuver in which instruction was given and the time spent thereon. The instructor shall attest each such entry with his initials and pilot certificate number and rating thereon. This log-book shall be made available, upon demand, to any authorized representative of the Department of Commerce or State or municipal officer enforcing local regulations or laws involving Federal compliance.

20.662. From and after the effective date of these regulations no flying time shall be taken into account in connection with the issuance, renewal or reinstatement of a pilot certificate unless the aircraft flown was possessed of a valid and appropriate certificate of airworthiness.

20.67. *Foreign Flights*: No person shall be in command of any aircraft of the United States flying in any foreign country unless possessed of a valid private, limited-commercial, commercial or airline pilot certificate, with a rating for the type, weight and engine classification of aircraft so flown.

NOTE.—For permission of U. S. Aircraft to be flown out of the United States with intent to enter a foreign country, see CAR 70.

## 21. AIRLINE PILOT RATING

21.0	Provision for Rating
21.1	Minimum Requirements
21.10	Age
21.11	Character
21.12	Citizenship
21.13	Education
21.14	Physical Condition
21.15	Aeronautical Knowledge
21.16	Aeronautical Experience
21.17	Aeronautical Skill
21.2	Airline Pilot Competency Certificate
21.20	General
21.21	Application
21.22	Issuance
21.23	Display
21.24	Duration
21.25	Renewal
21.26	Non-Transferability
21.27	Suspension or Revocation
21.28	Surrender
21.29	Re-Application
21.3	Examinations and Tests
21.30	General
21.31	Physical Examination
21.32	Time and Place
21.33	Aircraft Used in Tests
21.34	Aircraft Type Classification
21.35	Aircraft Weight and Engine Classification
21.36	Inspection
21.37	Standard of Performance
21.38	Reports
21.4	Pilot Regulations
21.40	Certificate Required
21.41	Aircraft Type and Weight
21.42	Night Flying
21.43	Log-Books
21.44	Foreign Flights

## CHAPTER 21. AIRLINE PILOT RATING

21.0. *PROVISION FOR RATING*: Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the rating of airmen serving in connection with aircraft of the United States as to their qualifications for such service, airline pilots will be rated as to competence in accordance with the provisions of the following paragraphs.

21.1. *MINIMUM REQUIREMENTS*: To be eligible for an airline pilot competency rating, an applicant shall comply with the following minimum requirements:

21.10. *Age*—Applicant shall be at least 23 years of age.

21.11. *Character*—Applicant shall be of good moral character.

21.12. *Citizenship*—Applicant shall be

21.120 (a). a citizen of the United States, or

21.121 (b). a citizen of a foreign country which grants reciprocal commercial pilot privileges to citizens of the United States on equal terms and conditions with citizens of such foreign country, or

21.122 (c). an alien who has filed his declaration of intention to become a citizen of the United States and notifies the Secretary of the serial number of such declaration and of the date thereof and of the court in which it is filed: *Provided*, That the certificate of competency is, in such case, subject to revocation if the holder does not from time to time keep the Secretary advised of the status of the proceedings in court and does not diligently and successfully prosecute them and become admitted as a citizen.

21.13. *Education*:

21.130 (a). Applicant shall be able to read, write, and understand the English language, and shall be able to speak the English language without accent or impediment of speech which would interfere with two-way radio conversation; and

21.131 (b). shall be a high school graduate or what is deemed by the Secretary to be its equivalent from the applicant's showing of general experience and aeronautical experience, knowledge and skill.

21.14. *Physical Condition*—Applicant shall comply with the following minimum requirements as to physical condition:

21.140 (a). *Eye*—Applicant shall have a visual acuity of at least 20/20 in each eye separately without correction; an



average depth perception of 30 millimeters or less without correction; no diplopia; not more than 1 diopter of hyperphoria; properly balanced eye muscles with an abduction of 3 diopters or more; sufficient accommodation to pass a Bureau test based primarily upon ability to read official aeronautical maps; normal fields of vision; and no pathology of the eye.

21.141 (b). Ear, Nose, Throat and Equilibrium—Applicant shall be able to hear the whispered voice at eight feet with each ear separately; shall have no acute or chronic disease of the middle or internal ear; no disease of the mastoid; no unhealed perforations of the ear drum; no disease or malformation of the nose or throat which may interfere with or be aggravated by flying, and no disturbance in equilibrium.

21.142 (c). General Physical Condition—Applicant shall have no organic or functional disease or structural defect or limitation which might interfere with the safe piloting of aircraft.

21.143 (d). Nervous System—Applicant shall have no disease of the mental or nervous system and no abnormality of the personality.

21.15. Aeronautical Knowledge—Applicant shall be familiar with and shall accomplish a satisfactory written examination on:

21.1500 (a). The provisions of CAR 00, 02, 40, 60, 61 and 98, with CAR 01.70 through 01.74, 04.52 and 04.53, and with 27, 30, 31, 91 and 94 insofar as the same deal with airline operations, and with CAR 41, 70, 71 and 77 if the pilot is to be rated for airline operation in whole or in part without the United States.

21.1501 (b). The fundamentals of air navigation and the use of formulae and of instruments and other navigational aids, both in aircraft and on the ground, which are deemed necessary for the navigation of aircraft by instruments.

21.1502 (c). The general system of weather collection and dissemination.

21.1503 (d). Weather map, weather forecast, and weather sequence abbreviations, symbols and nomenclature.

21.1504 (e). Elementary meteorology, including modern knowledge of the cyclone as associated with fronts.

21.1505 (f). Cloud forms.

21.1506 (g). Department of Agriculture Weather Bureau Circular "N", Instructions for Airway Meteorological Service, and all amendments thereto.

21.1507 (h). Weather conditions, including icing conditions and upper-air winds, affecting aeronautical activities.

21.1508 (i). Air navigation facilities in use on the civil airways, including rotating beacons, course lights, radio ranges, and radio marker beacons.

21.1509 (j). Data obtained from airplane weather observations and meteorological data reported from observations made by pilots engaged in airline flights.

21.1510 (k). The influence of terrain upon meteorological conditions and developments, and the relation thereof to airline flight operations.

21.16. Aeronautical Experience—Applicant shall comply with the following requirements:

21.160 (a). Applicant shall be possessed of a valid commercial pilot rating, or equivalent as determined by the Secretary.

21.161 (b). Applicant shall have logged at least 1,200 hours of certified solo flying time within the last 8 years, of which at least 500 hours shall have been in cross-country flight, and of which at least 5 hours of solo flying time shall have been logged within the 60 days last preceding the date of filing the application.

21.162 (c). Applicant shall have logged at least 100 hours of solo night flying, of which at least 50 hours shall have been cross-country over lighted airways.

21.163 (d). Applicant shall have had at least 20 hours of instrument flying instruction and practice. In lieu of not to exceed 10 hours of the foregoing 20-hour requirement applicant may show an equal or greater amount of instruc-

tion and practice under simulated conditions approved by the Secretary.

21.17. Aeronautical Skill—Applicant shall demonstrate satisfactorily his ability to pilot an aircraft of each type, weight and engine classification, as provided in CAR 21.34 and 21.35, on which he seeks rating, in normal take-offs, turns, landings, and the following maneuvers (the maneuvers in CAR 21.175 and 21.176 may be performed in a type of aircraft satisfactory to the examining Bureau inspector):

21.170 (a). From 2,000 feet, with engine throttled, a 360° turn and a landing in normal landing attitude, the wheels touching the ground beyond and within 200 feet of a line or point designated by the examining Bureau inspector.

21.171 (b). From 1,500 feet, with engine throttled, a 180° turn and a landing in normal landing attitude, the wheels touching the ground beyond and within 200 feet of a line or point designated by the examining Bureau inspector.

21.172 (c). A series of 3 shallow and 3 steep figure 8 turns, and one 720° steep power turn in each direction. During these maneuvers, the pilot shall not gain or lose more than 200 feet of altitude.

21.173 (d). A spiral in one direction from 2,000 feet, or higher, with engine throttled, and a landing in normal landing attitude, the wheels touching the ground beyond and within 200 feet of a line or point designated by the examining Bureau inspector.

21.174 (e). Altitudes and permissible errors in CAR 21.170 through 21.173 are applicable when flight tests are conducted in aircraft of a gross weight in excess of 10,000 pounds, otherwise those in CAR 20.1470 through 20.1472 apply.

21.175 (f). Emergency maneuvers such as spirals, side slips and climbing turns, and recovery from stalls, maneuvers in multi-engine equipment with authorized load with one engine inoperative, and such other maneuvers as the examining Bureau inspector may deem necessary to demonstrate the competence of the applicant.

21.176 (g). A right hand and a left hand spin, each of at least two full turns, with not to exceed 10 degrees error.

(NOTE.—The requirements of CAR 21.170 through 21.176 may be met by the holding of a valid commercial rating.)

21.177. Applicant shall accomplish satisfactorily a flight test, solely by instruments, with respect to the following:

21.1770 (a). Straight level flight for a given period of time.

21.1771 (b). Moderate banks during 180° and 360° turns in both directions.

21.1772 (c). Minimum glides and maximum climbs, and approaches to stalled attitudes of flight.

21.1773 (d). Climbing turns.

21.1774 (e). Recovery from stalls, skids, slips and spirals, and from banks in excess of 45°.

21.1775 (f). Such other maneuvers as the examining inspector deems necessary.

21.1776 (g). A practical demonstration, while in flight or under simulated conditions, of estimating arrival time, taking into account speed, wind and drift.

(NOTE.—The requirements of CAR 21.1770 through 21.1774 may be met by the holding of a valid instrument rating.)

21.178. Radio Skill—Applicant shall accomplish a satisfactory flight test, in a hooded cockpit, with respect to the following:

21.1780 (a). Tuning radio.

21.1781 (b). Orientation.

21.1782 (c). Following radio range.

21.1783 (d). Locating cone of silence.

21.1784 (e). Letting-down-through on the range by the approved instrument approach procedure for the particular airport used in connection with the test.

21.1785 (f). Such other maneuvers as the examining inspector deems necessary.

## 21.2 AIRLINE PILOT COMPETENCY CERTIFICATE

21.20. General: An airline pilot competency certificate will be issued by the Secretary to a natural person, who is an applicant therefor, after approval of an application



made and proofs submitted in connection therewith and if, upon inspection and examination, said applicant is found by the Secretary to meet the minimum requirements prescribed therefor in CAR 21.1. For 6 months after the effective date of these regulations the holder of both a valid transport pilot license and a scheduled air transport rating, upon a showing of the same and upon application made as provided in CAR 21.21, will be issued an airline pilot certificate with ratings specifying aircraft of the type, weight and engine classification as specified on his transport pilot license. In the interim, piloting shall be under authority heretofore granted.

21.21. *Application:* Application for an airline pilot certificate, subscribed under oath, shall be made to the Secretary upon a form supplied for the purpose.

21.210. *Application to Amend*—When any change in an airline pilot competency rating is desired, the applicant shall file a written request therefor with the Secretary upon a form supplied for the purpose.

21.211. *Proceeding to Amend*—A proceeding to amend an airline pilot competency rating may be instituted by the Secretary when, in his opinion, the pilot is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding shall be addressed to the pilot with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.

21.22. *Issuance:* Upon approval of an application duly made, proofs submitted and examinations and tests satisfactorily completed, an airline pilot certificate will be issued in an appropriate form.

21.220. *Temporary Certificate*—Following application made for an airline pilot certificate, but prior to approval thereof and issuance of the certificate, a temporary airline pilot certificate may be issued by the examining Bureau inspector.

21.221. *Special Ratings*—Any special rating, except an instrument rating, issued as provided in CAR 20.2 and 20.4 will be entered or indicated at the proper place therefor on the airline pilot certificate.

21.222. Any airline pilot, possessed of a valid certificate as such, shall be considered competent to instruct, as outlined in CAR 20.20, other pilots in airline service on the type of equipment in which the instructing pilot is rated.

21.23. *Display:* An airline pilot certificate shall be kept in the personal possession of the pilot at all times when piloting aircraft, and shall be presented for inspection upon the demand of any passenger, or of any authorized official or employee of the Department of Commerce or any State or municipal official charged with the duty of enforcing local laws or regulations involving Federal compliance, or upon the reasonable request of any other person.

21.24. *Duration:* An airline pilot certificate, unless sooner suspended or revoked, as provided in CAR 21.27, will remain in force for 6 months.

21.25. *Renewal:* The term of an airline pilot certificate may be renewed, for a like period as the original certificate, upon application within 45 days prior to expiration and upon satisfactory showing of the following facts:

21.250 (a). 10 hours of solo flight, in aircraft of each type, weight and engine classification for which renewal is sought, within the 6 months preceding expiration.

21.251 (b). 5 hours of flying solely by instruments within the 6 months preceding the expiration date of the certificate. In lieu of 50% of the above requirement, applicant may show an equal or greater amount of practice under simulated conditions approved by the Secretary.

21.252 (c). A satisfactory physical examination by a medical examiner of the Department of Commerce, duly authorized to so examine such pilots, completed within the 45 days preceding expiration, in accordance with the provisions of CAR 21.14. Provided, however, that the existence of a lesser grade or condition in one or more of the particulars mentioned in CAR 21.14 may not disqualify the applicant if excellence in other particulars or excellence in aeronautical experience or in aeronautical skill offsets the

deficiency, in the opinion of the Secretary; and *provided*, further, that an increase in such deficiency, which occurs at any time within the effective period of the certificate and cannot be compensated for by some other excellence (as in aeronautical experience or practical skill) will be ground for the revocation of such certificate.

21.253. *Reinstatement*—In the event of an emergency which prevents renewal prior to expiration, and upon a showing thereof satisfactory to the Secretary, the applicant may have his airline pilot certificate validated in accordance with the provisions for renewal in CAR 21.25, provided the flight tests appropriate to the rating are again satisfactorily accomplished. The date of application for reinstatement rather than the expiration date of the certificate shall be controlling in applying CAR 21.25. There shall be but one application for reinstatement following a given lapse.

21.254. *Re-Rating after Lapse*—Within 6 months after the expiration date of an airline pilot certificate the holder thereof may have issued to him a solo pilot certificate upon application therefor and a satisfactory showing to the Secretary of physical competency as provided in CAR 21.252, and of 5 hours of certified solo flying time logged by the applicant within the year preceding application in aircraft of each type, weight and engine classification for which the solo pilot certificate is sought.

21.26. *Non-Transferability:* An airline pilot certificate is not transferable.

21.27. *Suspension or Revocation:* The following rules will govern the suspension or revocation of an airline pilot certificate.

21.270. *Automatic Invalidation*—Any physical deficiency, or any increase in physical deficiency, which occurs at any time within the effective period of an airline pilot certificate and which is not compensated for by some additional excellence as provided for in CAR 21.252, will automatically cause such pilot certificate to become invalid for the period of such physical deficiency.

21.271. *General Grounds*—An airline pilot certificate may be suspended or revoked by reason of any of the following on the part of the holder thereof:

21.27100 (a). Any false statement in an application for a certificate or in any report required to be submitted by these regulations.

21.27101 (b). Use or display of the certificate for any fraudulent purpose.

21.27102 (c). Refusal to exhibit the certificate upon proper demand.

21.27103 (d). Unsound physical or mental condition.

21.27104 (e). Any demonstration of incompetency in the piloting of aircraft.

21.27105 (f). Failure to wear correcting lenses when required.

21.27106 (g). Being under the influence of, or using or having personal possession of, intoxicating liquor, cocaine or other habit-forming drugs while on duty.

21.27107 (h). Knowingly taking off and carrying any passenger who is obviously under the influence of intoxicating liquor, cocaine or other habit-forming drugs.

21.27108 (i). Carelessness or inattention to duty affecting safety.

21.27109 (j). Performance of any act in connection with aircraft which is contrary to the public safety or interest.

21.27110 (k). Violation of any provision of the Air Commerce Act or any rule or regulations duly issued thereunder.

21.28. *Surrender:* Upon notice from the Secretary of the suspension or revocation of an airline pilot certificate, the holder thereof shall immediately return such certificate to the Secretary.

21.29. *Re-Application:* An applicant for an airline pilot certificate who has failed to successfully accomplish any prescribed test for such rating may apply for re-examination thereon after the expiration of 30 days from the date of such failure, provided he shows at least 10 additional



hours of certified solo flying time logged by him, which shall include at least 5 hours of flying solely by instruments.

### 21.3. EXAMINATIONS AND TESTS

21.30. *General*: The examinations and tests prescribed in these regulations (both for an airline pilot certificate and for the ratings issued with respect thereto) will be conducted by an authorized officer or employee of the Bureau or by a properly qualified person designated for the purpose by the Secretary. During the flight tests the airline may have a check pilot on board.

21.31. *Physical Examination*: In connection with the original issuance of any airline pilot certificate the physical examination prescribed shall be accomplished by a medical examiner of the Department of Commerce, duly authorized to so examine such pilots, before any practical or theoretical test or other examination will be given, and shall be completed within the 60 days preceding the date of filing application for such pilot certificate.

21.32. *Time and Place*: All examinations and tests will be held at such times and places as the Secretary may designate.

21.33. *Aircraft Used in Tests*: The applicant shall furnish a certificated aircraft for any flight test involved. Each such aircraft, used in any test for an airline pilot certificate shall be equipped with dual controls and shall accommodate the applicant and the inspector. Aircraft having only one elevator and aileron control for two seats, or any arrangement whereby all flight and engine controls cannot be handled in a normal or conventional manner from either seat, are not considered as having dual controls for the purpose of flight tests for pilot ratings. Each such aircraft shall have full normal visibility for the check pilot.

21.34. *Aircraft Type Classification*: For purposes of specifying the types of aircraft which the applicant is deemed competent to pilot and for convenience of examining the applicant with respect thereof, the following aircraft type classification is prescribed:

- (a) Conventional airplane (land or water)
- (b) Unconventional airplane (land or water)
- (c) Rotorplane (land or water)
- (d) Glider
- (e) Aerostat

21.35. *Aircraft Weight and Engine Classification*: For purposes of specifying the weight and power-plant equipment of aircraft which the applicant is deemed competent to pilot, and for convenience of examining the applicant with respect thereto, the following aircraft weight and engine classification is prescribed:

- (a) Class 1—Gross weight not more than 1,500 pounds.
- (b) Class 2S—Gross weight between 1,500 and 4,000 pounds, single-engine.
- (c) Class 2M—Gross weight between 1,500 and 4,000 pounds, multi-engine.
- (d) Class 3S—Gross weight between 4,000 and 10,000 pounds, single-engine.
- (e) Class 3M—Gross weight between 4,000 and 10,000 pounds, multi-engine.
- (f) Class 4S—Gross weight between 10,000 and 25,000 pounds, single-engine.
- (g) Class 4M—Gross weight between 10,000 and 25,000 pounds, multi-engine.
- (h) Class 5—Gross weight in excess of 25,000 pounds.

21.36. *Inspection*: The applicant for an airline pilot certificate shall offer full cooperation in respect of any inspection or examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of such certificate.

21.37. *Standard of Performance*: Every practical and theoretical examination and test shall be accomplished to the satisfaction of the Secretary and the minimum passing grade in the subject of examination or test shall be 70 per cent.

Each flight maneuver will be graded separately. Other examinations will be graded as a whole.

21.38. *Reports*: The person giving any examination or test in behalf of the Secretary will report the result thereof upon an appropriate form to the Secretary and all data collected incident to such examination or test will be considered as of a confidential nature by such person and by all employees of the Department of Commerce.

### 21.4. PILOT REGULATIONS

21.40. *Certificate Required*: No person shall be in command of an aircraft in certificated scheduled air carrier service for the carriage of passengers on a civil airway, or in interstate or foreign air commerce or elsewhere, unless possessed of a valid airline pilot certificate.

21.41. *Aircraft Type and Weight*: No person holding a valid airline pilot certificate shall pilot for hire, or carry any person for or without hire other than a properly certificated instructor in, an aircraft of a type, weight or engine classification other than as specified in his airline pilot certificate.

21.42. *Night Flying*: Unless an airline pilot has had at least 2 hours of night solo flying within the last preceding 90 days he shall not pilot aircraft carrying passengers for hire, between sunset and sunrise, until after he has taken off and landed, between sunset and sunrise, at least 10 times. At least 3 of such landings shall have been made to a full stop.

21.43. *Log-Books*: The following rules will govern pilot log-books:

21.430. *General*—Every certificated airline pilot shall keep an accurate record of his flying time in a log-book in which the entries as to solo flying have been certified to by him before a notary public or by an official of the airline of which he is an employee during such time, and in which the entries as to instruction have been certified to by his instructor.

21.431. *Contents*—The log-book shall contain the date of flight, the type of aircraft flown, the aircraft certificate number, a statement of instrument and night flying time, the duration of the flight, and the points between which such flight was made, and, in addition, when any flight results in serious damage to the aircraft, a notation to this effect. Flying instruction time shall be logged in the same manner and, in addition, the instructor shall make complete entries in the log-book of his student showing the nature of each maneuver in which instruction was given and the time spent thereon. The instructor shall attest each such entry with his initials and pilot certificate number and rating thereon. This log-book shall be made available, upon demand, to any authorized representative of the Department of Commerce or State or municipal officer enforcing local regulations or laws involving Federal compliance.

21.44. *Foreign Flights*: No person shall be in command of any aircraft of the United States flying in any foreign country unless possessed of an airline pilot certificate with a rating for the type, weight and engine classification of aircraft so flown.

NOTE.—For permission of U. S. aircraft to be flown out of the United States with intent to enter a foreign country, see CAR 70.

### 23. GROUND INSTRUCTOR RATING

- 23.0 Provision for Rating
- 23.1 Minimum Requirements
- 23.2 Instructor Competency Certificate
  - 23.20 Provision for Issuance
  - 23.21 Application
  - 23.22 Issuance
  - 23.23 Display
  - 23.24 Duration
  - 23.25 Renewal
  - 23.26 Non-Transferability
  - 23.27 Suspension or Revocation
  - 23.28 Surrender
  - 23.29 Re-Application
- 23.3 Examinations and Tests
  - 23.30 General
  - 23.31 Time and Place
  - 23.32 Inspection
  - 23.33 Standard of Performance
  - 23.34 Reports
- 23.4 Ground Instructor Regulations
  - 23.40 No Instruction Without Certificate



## CHAPTER 23. GROUND INSTRUCTOR RATING

**23.0. PROVISION FOR RATING:** Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the rating of instructors in civilian schools giving instruction in flying as to their competency for such service, ground instructors will be rated in accordance with the provisions of the following paragraphs.

**23.1. MINIMUM REQUIREMENTS:** To be eligible for a ground instructor competency rating, an applicant shall have practical and theoretical knowledge of each ground school subject which the applicant desires to teach in a certificated flying school, or elsewhere. Such knowledge shall be sufficient to accomplish satisfactorily a written examination thereon.

**23.2. INSTRUCTOR COMPETENCY CERTIFICATE**

**23.20. Provision for Issuance:** A ground instructor certificate of competency will be issued by the Secretary upon approval of application made and satisfactory proofs submitted, to a natural person who, upon inspection and examination, is found by the Secretary to meet the minimum requirements prescribed in CAR 23.1 and is, therefore, rated as competent to give instruction in the aviation ground school subject, or subjects, specified.

**23.201.** Each holder of a valid ground instructor's rating on the date these regulations go into effect may instruct pursuant to such authority until the expiration thereof, and then, upon compliance with the provisions for renewal thereof, have issued to him a ground instructor certificate of competency as provided for herein.

**23.21. Application:** Application for a ground instructor certificate of competency, subscribed under oath, shall be made to the Secretary upon a form supplied for the purpose.

**23.210. Application to Amend—**When any change in a ground instructor competency rating is desired, the applicant shall file a written request therefor with the Secretary or may make oral or written request of the local Bureau inspector.

**23.211. Proceeding to Amend—**A proceeding to amend a ground instructor competency rating may be instituted by the Secretary when, in his opinion, the instructor is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding shall be addressed to the instructor with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.

**23.22. Issuance:** Upon approval of an application duly made, proofs submitted and examinations and tests satisfactorily completed, a ground instructor certificate of competency will be issued.

**23.220. Temporary Certificate—**Following application made for a ground instructor certificate, but prior to approval thereof and issuance of the certificate, a temporary ground instructor certificate may be issued by the local Bureau inspector. Likewise, for the period of time elapsing between application for renewal of a certificate and the issuance of the renewal, a temporary certificate may be issued by the local Bureau inspector.

**23.23. Display:** A ground instructor certificate of competency shall be kept in the personal possession of the instructor at all times when he is engaged in giving instruction in ground school subjects to students in any certificated flying school, or elsewhere, and shall be presented upon the demand of any student, school officer, or of any authorized official or employee of the Department of Commerce, or upon the reasonable request of any other person.

**23.24. Duration:** A ground instructor certificate, unless sooner suspended or revoked, as provided in CAR 23.27, will remain in force for the period of one year from date of issuance.

**23.25. Renewal:** A ground instructor certificate may be renewed upon application within 30 days prior to the expiration thereof and upon satisfactory showing that the holder has served in a capacity of ground instructor in an approved school, or elsewhere, for a period of time not less than one-half the duration of his certificate.

**23.26. Non-Transferability:** A ground instructor certificate of competency is not transferable.

**23.27. Suspension or Revocation:** A ground instructor certificate of competency may be suspended or revoked by reason of any of the following on the part of the holder thereof:

**23.270 (a).** Any false statement in an application for a ground instructor certificate.

**23.271 (b).** Any demonstration of incompetency in giving instruction in ground school subjects.

**23.272 (c).** Refusal to exhibit ground instructor certificate upon demand.

**23.273 (d).** Carelessness or inattention to duty.

**23.274 (e).** Violation of any provision of the Air Commerce Act or any rules or regulation duly issued thereunder.

**23.28. Surrender:** Upon notice from the Secretary of the suspension or revocation of his ground instructor certificate, the holder shall immediately return such certificate to the Secretary.

**23.29. Re-Application:** An applicant for a ground school instructor certificate, who has failed to successfully accomplish any prescribed examination or test for such rating or certificate, may apply for re-examination therefor after the expiration of 30 days from the date of such failure.

**23.3. EXAMINATIONS AND TESTS**

**23.30. General:** The examinations and tests prescribed in the foregoing regulations will be conducted by an authorized officer or employee of the Department of Commerce or by a properly qualified person designated by the Secretary. The Secretary may, in his discretion and at any time, require any applicant or the holder of any ground school instructor certificate to undergo a re-examination in any theoretical or practical test prescribed as requisite for such rating or certificate.

**23.31. Time and Place:** All examinations and tests will be held at such time and place as the Secretary may designate.

**23.32. Inspection:** The applicant for any ground instructor certificate of competency shall offer full cooperation in respect of any inspection and examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of a ground instructor certificate of competency.

**23.33. Standard of Performance:** All practical and theoretical examinations and tests shall be accomplished to the satisfaction of the Secretary and the minimum passing grade in the subject of examination or test shall be 70 per cent.

**23.34. Reports:** The person giving any examination or test in behalf of the Secretary will promptly report the result thereof to the Secretary.

**23.4. GROUND INSTRUCTOR REGULATIONS:** The following rules will govern the giving of instruction in ground school subjects in certificated flying schools.

**23.40. No Instruction Without Certificate:** No person shall give, or offer to give, any instruction in ground school subjects to students of a certificated flying school unless such person is possessed of a valid ground instructor certificate.

**24. MECHANIC RATING**

- 24.0 Provision for Rating
- 24.1 Minimum Requirements
- 24.10 Aircraft Mechanic Rating
- 24.11 Aircraft Engine Mechanic Rating
- 24.2 Mechanic Competency Certificate
- 24.20 Provision for Issuance
- 24.21 Application
- 24.22 Issuance
- 24.23 Display
- 24.24 Duration
- 24.25 Renewal
- 24.26 Non-Transferability
- 24.27 Suspension or Revocation
- 24.28 Surrender
- 24.29 Re-Application
- 24.3 Examinations and Tests
- 24.30 General
- 24.31 Time and Place
- 24.32 Inspection
- 24.33 Standard of Performance
- 24.34 Reports
- 24.4 Mechanic Regulations
- 24.40 Repairs and Overhaul of Aircraft



## CHAPTER 24. MECHANIC RATING

**24.0. PROVISION FOR RATING:** Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the rating of airmen serving in connection with aircraft of the United States as to their qualifications for such service, mechanics will be rated in accordance with the provisions of the following paragraphs.

**24.00. Mechanic ratings will be as follows:**

- (a) Aircraft Mechanic Rating
- (b) Aircraft Engine Mechanic Rating

**24.1. MINIMUM REQUIREMENTS:** To be eligible for a mechanic competency rating, an applicant shall comply with the following minimum requirements prescribed for the particular rating sought.

**24.10. Aircraft Mechanic Rating:** To be eligible for an aircraft mechanic rating, an applicant shall comply with the following minimum requirements.

**24.100. Age—Applicant shall be at least 18 years of age.**

**24.101. Character—Applicant shall be of good moral character.**

**24.102. Citizenship—Applicant may be a citizen of any nationality.**

**24.103. Education—Applicant shall be able to read, speak, write and understand the English language.**

**24.104. Aeronautical Knowledge—Applicant shall have theoretical and practical knowledge of aircraft structure and rigging, including the control systems, shall know how to properly inspect, maintain, repair and overhaul the same, and shall be familiar with the provisions of CAR 00, 01, 02, 04, 15, 18 and 24.**

**24.105. Aeronautical Experience—Applicant shall have had at least one year of practical experience in the construction, maintenance, or repair of aircraft.**

**24.106. Aeronautical Skill—Applicant shall satisfactorily demonstrate, by means of written, oral and practical tests, his ability with respect to the subject matters prescribed in CAR 24.104.**

**24.11. Aircraft Engine Mechanic Rating:** To be eligible for an aircraft engine mechanic rating, an applicant shall comply with the following minimum requirements:

**24.110. Age—Same as in CAR 24.100.**

**24.111. Character—Same as in CAR 24.101.**

**24.112. Citizenship—Same as in CAR 24.102.**

**24.113. Education—Same as in CAR 24.103.**

**24.114. Aeronautical Knowledge—Applicant shall have theoretical and practical knowledge of aircraft engines and their accessories, including ignition systems, shall know how to properly inspect, maintain, repair and overhaul the same, and shall be familiar with the provisions of CAR 00, 01, 02, 04, 13, 14, 15, 18 and 24.**

**24.115. Aeronautical Experience—Applicant shall have had at least one year of practical experience in the maintenance, repair and overhaul of aircraft engines.**

**24.116. Aeronautical Skill—Applicant shall satisfactorily demonstrate, by means of written, oral and practical tests, his ability with respect to the subject matter prescribed in CAR 24.114.**

## 24.2 MECHANIC COMPETENCY CERTIFICATE

**24.20. Provision for Issuance:** An appropriate mechanic certificate of competency will be issued by the Secretary upon approval of application made and satisfactory proofs submitted, to a natural person who, upon inspection and examination, is found by the Secretary to meet the appropriate minimum requirements prescribed in CAR 24.1 and is, therefore, rated as competent to construct, repair, adjust, or overhaul aircraft or aircraft engines, as the case may be, or for the inspection of any aircraft or engine construction, repairs, adjustments or overhauls.

**24.200. Each holder of a valid engine mechanic's license and/or a valid airplane mechanic's license on the date these regulations go into effect may perform service pursuant to such authority until the expiration thereof, and then, upon compliance with the provisions for renewal thereof, have**

issued to him a mechanic competency certificate with an aircraft mechanic rating and/or an aircraft engine rating thereon, as the case may be, as provided for herein.

**24.201. Identification Card—**In the discretion of the Secretary, an appropriate mechanic's identification card will be issued with mechanic certificate.

**24.21. Application:** Application for a mechanic certificate, subscribed under oath, shall be made to the Secretary upon a form supplied for the purpose.

**24.210. Application to Amend—**When any change in a mechanic competency rating is desired, the applicant shall file a written request therefor with the Secretary or may make oral or written request of the local Bureau inspector.

**24.211. Proceeding to Amend—**A proceeding to amend a mechanic competency rating may be instituted by the Secretary when, in his opinion, the mechanic is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding shall be addressed to the mechanic with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.

**24.22. Issuance:** Upon approval of an application duly made, proofs submitted, and examinations and tests satisfactorily completed, a mechanic certificate of competency will be issued in an appropriate form.

**24.220. Temporary Certificate—**Following application made for a mechanic certificate of competency, but prior to approval thereof and issuance of the certificate, a temporary mechanic certificate may be issued by the local Bureau inspector. Likewise, for the period of time elapsing between application for renewal of a certificate and the issuance of the renewal, a temporary certificate may be issued by the local Bureau inspector.

**24.23. Display:** A mechanic certificate shall be kept in the personal possession of the mechanic at all times when he is serving in connection with aircraft possessed of a valid aircraft certificate, and shall be presented upon the demand of any passenger in, or owner of, such aircraft upon which such mechanic has worked, or of any authorized official or employee of the Department of Commerce or of any State or municipal official charged with the duty of enforcing local laws or regulations involving Federal compliance, or upon the reasonable request of any other person.

**24.24. Duration:** A mechanic certificate, unless sooner suspended or revoked in accordance with the provisions of CAR 24.27, will remain in force for two years after the date of issue.

**24.25. Renewal:** A mechanic certificate may be renewed upon application within 30 days prior to the expiration thereof and upon satisfactory showing that, during the term of the last certificate, the holder has rendered service, under his certificate, during at least one-half of the term thereof, and that he complies with all of the appropriate minimum requirements prescribed in CAR 24.1. The service so rendered shall be described in written statement under oath subscribed by the applicant. The employer, if any, of the applicant shall certify to the authenticity of such statement.

**24.26. Non-Transferability:** A mechanic certificate is not transferable.

**24.27. Suspension or Revocation:** A mechanic certificate may be suspended or revoked by reason of any of the following, on the part of the holders thereof:

**24.270 (a).** Any false statement in an application for a certificate or in any report required by the Secretary.

**24.271 (b).** Using or displaying the certificate for any fraudulent purpose.

**24.272 (c).** Refusal to exhibit the certificate upon proper demand.

**24.273 (d).** Carelessness or inattention to duty.

**24.274 (e).** Any demonstration of incompetency in the construction, repair, adjustment, or overhaul of aircraft, or aircraft engines, or in the inspection of construction, repair, adjustment, or overhaul thereof.



24.275 (f). Being under the influence, or using, or having personal possession, of intoxicating liquor, cocaine, or other habit-forming drugs while on duty.

24.276 (g). Doing any act in connection with aircraft or aircraft engines which is contrary to the public safety or interest, or detrimental to the morale of pilots or mechanics.

24.277 (h). Violation of any provisions of the Air Commerce Act or of any of the rules or regulations duly issued thereunder.

24.28. *Surrender*: Upon notice from the Secretary of the suspension or revocation of his mechanic certificate, the holder shall immediately return such certificate to the Secretary.

24.29. *Re-Application*: An applicant for a mechanic certificate of competency who has failed to successfully accomplish the prescribed theoretical or practical tests may apply for re-examination at any time after the expiration of 90 days, from the date of such failure.

#### 24.3. EXAMINATIONS AND TESTS

24.30. *General*: The examinations and tests prescribed in the foregoing regulations will be conducted by an authorized officer or employee of the Department of Commerce or by a properly qualified person designated for the purpose by the Secretary. The Secretary may, in his discretion and at any time, require any applicant, or mechanic certificate holder, to undergo a re-examination in any theoretical or practical test prescribed as requisite for such certificates.

24.31. *Time and Place*: All examinations and tests will be held at such times and places as the Secretary may designate.

24.32. *Inspection*: The applicant for any mechanic certificate of competency shall offer full cooperation in respect of any inspection and examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of a mechanic certificate of competency.

24.33. *Standard of Performance*: All practical or theoretical examinations and tests shall be accomplished to the satisfaction of the Secretary, and the minimum passing grade in any subject of examination or test shall be 70 per cent.

24.34. *Reports*: The person giving any examination or test in behalf of the Secretary will promptly report the result thereof to the Secretary.

24.4. *MECHANIC REGULATIONS*: The following rules pertaining to mechanic certificates will govern mechanic services in relation to certificated aircraft:

24.40. *Repair or Overhaul of Aircraft*: A workman or mechanic, other than one possessed of a valid mechanic certificate, may engage in the repair or overhaul of certificated aircraft if such repair or overhaul is in charge of a mechanic possessed of a valid mechanic certificate.

#### 25. PARACHUTE RIGGER RATING

25.0	Provision for Rating
25.1	Minimum Requirements
25.10	Age
25.11	Character
25.12	Citizenship
25.13	Education
25.14	Aeronautical Experience
25.2	Parachute Rigger Certificate
25.20	Provision for Issuance
25.21	Application
25.22	Issuance
25.23	Display
25.24	Duration
25.25	Renewal
25.26	Non-Transferability
25.27	Suspension or Revocation
25.28	Surrender
25.29	Re-Application
25.3	Examinations and Tests
25.30	General
25.31	Time and Place
25.32	Inspection
25.33	Standard of Performance
25.34	Reports
25.4	Parachute Rigger Regulations
25.40	Necessity for Certificate
25.41	Responsibility in Repacking
25.42	Minimum Facilities
25.43	Minor Repairs
25.44	Major Repairs

#### CHAPTER 25. PARACHUTE RIGGER RATING

25.0. *PROVISION FOR RATING*: Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide by regulation for the rating of airmen serving in connection with aircraft of the United States as to their qualifications for such service, parachute riggers will be rated in accordance with the provisions of the following paragraphs:

25.1. *MINIMUM REQUIREMENTS*: To be eligible for a parachute rigger competency rating, an applicant shall comply with the following minimum requirements.

25.10. *Age*: Applicant shall be at least 18 years of age.

25.11. *Character*: Applicant shall be of good moral character.

25.12. *Citizenship*: Applicant may be a citizen of any nationality.

25.13. *Education*: Applicant shall be able to read, write, speak and understand the English language.

25.14. *Aeronautical Experience*: Applicant shall show satisfactory proof of having packed 20 or more parachutes under the supervision of a certificated parachute rigger.

#### 25.2. PARACHUTE RIGGER CERTIFICATE

25.20. *Provision for Issuance*: A parachute rigger certificate of competency will be issued by the Secretary, upon approval of application made and satisfactory proofs submitted, to a natural person who, upon inspection and examination, is found by the Secretary to meet the minimum requirements prescribed in CAR 25.1 and is, therefore, rated as competent to pack, repair, inspect, and maintain any parachute used in connection with civil aircraft of the United States.

25.200. Each holder of a valid parachute rigger license on the date these regulations go into effect may perform service pursuant to such authority until the expiration thereof, and then, upon compliance with the provisions for the renewal thereof, have issued to him a parachute rigger certificate, as provided for herein.

25.21. *Application*: Application for a parachute rigger certificate of competency, subscribed under oath, shall be made to the Secretary upon a form supplied for the purpose.

25.210. *Application to Amend*—When any change in a parachute rigger competency rating is desired, the applicant shall file a written request therefor with the Secretary or may make oral or written request of the local Bureau inspector.

25.211. *Proceeding to Amend*—A proceeding to amend a parachute rigger competency rating may be instituted by the Secretary when, in his opinion, the parachute rigger is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding shall be addressed to the parachute rigger with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.

25.22. *Issuance*: Upon approval of an application duly made, proof submitted and examinations and tests satisfactorily completed, a parachute rigger certificate of competency will be issued.

25.220. *Temporary Certificate*—Following application made for a parachute rigger certificate, but prior to approval thereof and issuance of the certificate, a temporary parachute rigger certificate may be issued by the local Bureau inspector. Likewise, for the period of time elapsing between application for renewal of a certificate and the issuance of the renewal, a temporary certificate may be issued by the local Bureau inspector.

25.23. *Display*: A parachute rigger certificate shall be kept in the holder's personal possession when he is working on any parachute and must be presented for inspection upon demand of any prospective wearer, user, or owner of a parachute upon which such rigger has worked, or any authorized official or employee of the Department of Commerce, or State or municipal official charged with enforcing local regulations or laws involving Federal compliance, or upon the reasonable request of any other person.



25.24. *Duration*: A parachute rigger certificate, unless sooner suspended or revoked in accordance with the provisions of CAR 25.27, will remain in force for 2 years after date of issue.

25.25. *Renewal*: A parachute rigger certificate may be renewed upon application within 30 days prior to the expiration thereof and upon satisfactory showing that, during at least one-half of the term thereof, the holder has rendered service under his certificate and has packed at least 25 parachutes.

25.26. *Non-Transferability*: A parachute rigger certificate is not transferable.

25.27. *Suspension or Revocation*: A parachute rigger certificate may be suspended or revoked by reason of any of the following on the part of the holder thereof:

25.270 (a). Any false statement in application for certificate or in any report required by the Secretary.

25.271 (b). Using or displaying certificate for any fraudulent purpose.

25.272 (c). Refusal to exhibit certificate on proper demand.

25.273 (d). Doing any act in connection with parachutes which is contrary to the public safety or interest, or detrimental to the morale of pilots or parachute riggers.

25.274 (e). Any demonstration of incompetency in the repair, maintenance, inspection, or packing of a parachute. Furthermore, the failure of any parachute packed by the certificate holder to open after the rip cord was pulled by the wearer shall be prima facie evidence of incompetency.

25.275 (f). Being under the influence of, or using or having personal possession of intoxicating liquor, cocaine, or other habit-forming drugs while on duty.

25.276 (g). Carelessness or inattention to duty.

25.277 (h). Violation of any provision of the Air Commerce Act or any regulations duly issued thereunder.

25.28. *Surrender*: Upon notice from the Secretary of the suspension or revocation of his parachute rigger certificate, the holder shall immediately return such certificate to the Secretary.

25.29. *Re-Application*: Any applicant for a parachute rigger certificate who has failed to accomplish successfully the prescribed theoretical or practical tests or meet the requirements for such rating or certificate shall be privileged to reapply any time after the expiration of 90 days from the date of such disapproval.

### 25.3. EXAMINATIONS AND TESTS

25.30. *General*: The examinations and tests prescribed in the foregoing regulations will be conducted by an authorized officer or employee of the Department of Commerce or by a properly qualified person designated by the Secretary. The Secretary may, in his discretion and at any time, require any applicant or the holder of any parachute rigger certificate to undergo a re-examination in any theoretical or practical test prescribed as requisite for such rating or certificate.

25.31. *Time and Place*: All examinations and tests will be held at such time and place as the Secretary may designate.

25.32. *Inspection*: The applicant for any parachute rigger certificate of competency shall offer full cooperation in respect of any inspection and examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of a parachute rigger certificate of competency.

25.33. *Standard of Performance*: All practical and theoretical examinations and tests shall be accomplished to the satisfaction of the Secretary, and the minimum passing grade in the subject of examination or test shall be 70 per cent.

25.34. *Reports*: The person giving any examination or test in behalf of the Secretary will promptly report the result thereof to the Secretary.

25.4. *PARACHUTE RIGGER REGULATIONS*: The following rules pertaining to parachute rigger certificates will govern parachute rigger services in relation to parachutes:

25.40. *Necessity for Certificate*: No person (other than one designated by, and operating as a parachute packer or rigger for, the Army or Navy) shall pack, repair, inspect, or maintain any parachute used in connection with civil aircraft of the United States, unless possessed of a valid parachute rigger certificate of competency.

25.41. *Responsibility in Repacking*: A person possessed of a valid parachute rigger certificate shall be charged with the responsibility of refusing to repack any parachute which is in an unairworthy conditions.

25.42. *Minimum Facilities*: A person possessed of a valid parachute rigger certificate shall not pack, repack or repair as provided for in CAR 25.43, any parachute except in a place where the minimum facilities for such operations are

(a) A suitable table, at least 3 by 40 feet, with smooth surface;

(b) a rack where parachutes can be suspended for drying and airing;

(c) packing tools and repair equipment suitable for the repacking and repair of the type of parachute involved, and

(d) adequate housing facilities for the above equipment.

25.43. *Minor Repairs*: Repairs such as the replacement of pack-opening rubbers, packs and pilot chutes, and the patching of holes and tears in silk, may be made by any person possessed of a valid parachute rigger certificate.

25.44. *Major Repairs*: Repairs such as the replacement of canopies, panels, shroud lines and harness shall be made only by the manufacturer of the parachute involved, or by another manufacturer of parachutes deemed competent by the Secretary to make such repairs.

### 26. AIRPORT CONTROL TOWER OPERATOR RATING

26.0	Provision for Rating
26.1	Minimum Requirements
26.10	Junior Airport Control Tower Operator Rating
26.11	Associate Airport Control Tower Operator Rating
26.12	Senior Airport Control Tower Operator Rating
26.2	Airport Control Tower Operator Certificate
26.20	Provision for Issuance
26.21	Application
26.22	Issuance
26.23	Display
26.24	Duration
26.25	Renewal
26.26	Non-Transferability
26.27	Suspension or Revocation
26.28	Surrender
26.29	Re-Application
26.3	Examinations and Tests
26.30	General
26.31	Time and Place
26.32	Physical Examination
26.33	Inspection
26.34	Standard of Performance
26.35	Reports

### CHAPTER 26. AIRPORT CONTROL TOWER OPERATOR RATING

26.0. *PROVISION FOR RATING*: Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide by regulation for the rating of all airmen serving in connection with aircraft of the United States as to their qualifications for such service and for the issuance of airmen certificates and such other certificates and regulations as the Secretary deems necessary in administering the Act, airport control tower operator ratings will be as follows:

- (a) Junior Airport Control Tower Operator Rating.
- (b) Associate Airport Control Tower Operator Rating.
- (c) Senior Airport Control Tower Operator Rating.

26.1. *MINIMUM REQUIREMENTS*: To be eligible for an airport control tower operator competency rating, an applicant shall comply with the following minimum requirements prescribed for the rating sought.

26.10. *Junior Control Tower Operator Rating*: To be eligible for a junior control tower operator rating, applicant shall comply with the following minimum requirements.

26.100. *Age*—Applicant shall be at least 22 years of age.



26.101. Character—Applicant shall be of good moral character.

26.102. Citizenship—Applicant shall be

- (a) a citizen of the United States, or
- (b) an alien who has filed his declaration of intention to become a citizen of the United States and notifies the Secretary of the serial number of such declaration and of the date thereof and of the court in which it is filed: *Provided*, That the certificate of competency is, in such case, subject to revocation if the holder does not from time to time keep the Secretary advised of the status of the proceedings in court and does not diligently and successfully prosecute them and become admitted as a citizen.

26.103. Education—Applicant shall be able to read, write, and understand the English language, shall be able to speak the English language without accent or impediment of speech which would interfere with intelligible two-way radio conversation, and shall be a high school graduate or its equivalent.

26.104. Physical Requirements—Applicant shall comply with the following minimum requirements as to physical condition.

26.1040 (a). Eye—Applicant shall have a visual acuity of at least 20/20 in each eye separately without correction; an average depth perception of 30 millimeters or less without correction; no diplopia; not more than 1 diopter of hyperphoria; properly balanced eye muscles with an abduction of 3 diopters or more; sufficient accommodation to pass a Bureau test based primarily upon ability to read official aeronautical maps; normal fields of vision, and no pathology of the eye.

26.1041 (b). Ear, Nose, Throat and Equilibrium—Applicant shall be able to hear the whispered voice at eight feet with each ear separately; shall have no acute or chronic disease of the middle or internal ear; no disease of the mastoid; no unhealed perforations of the ear drum; no disease or malformation of the nose or throat which will interfere with or be aggravated by the performance of his duties, and no disturbance of equilibrium.

26.1042 (c). General Physical Condition—Applicant shall have no organic or functional disease, nor any structural defect or limitation which might interfere with the proper performance of his duties.

26.1043 (d). Nervous System—Applicant shall have no disease of the mental or nervous system and no abnormality of the personality.

26.105. Aeronautical Knowledge—Applicant shall be familiar with and accomplish satisfactorily an examination on 26.1050 (a). airway traffic control procedure (See CAR 60).

26.1051 (b). airline schedules at the airport for which he seeks to be rated,

26.1052 (c). airport traffic control regulations for the airport for which he seeks to be rated, and

26.1053 (d). teletype symbols and weather sequences on airways converging on the airport for which he seeks to be rated.

26.106. Aeronautical Experience—No minimum requirements.

26.11. Associate Airport Control Tower Operator Rating: To be eligible for an associate airport control tower operator rating an applicant shall comply with the following minimum requirements:

26.110. Age—Applicant shall be at least 25 years of age.

26.111. Character—Same as CAR 26.101.

26.112. Citizenship—Applicant must be a citizen of the United States.

26.113. Education—Same as CAR 26.103.

26.114. Physical Requirements—Same as CAR 26.104, except that vision of 20/30 will be permitted provided applicant has served satisfactorily, in the opinion of the Secretary, as an airport control tower operator for a period of 6 months during the year immediately preceding his application.

26.115. Aeronautical Knowledge—Same as in CAR 26.105, and in addition the applicant shall be familiar with and accomplish satisfactorily an examination on

26.1150 (a). airline operation procedure at the airport for which he seeks to be rated,

26.1151 (b). air navigation facilities within 200 miles of the airport for which he seeks to be rated,

26.1152 (c). air traffic rules as provided in CAR 60,

26.1153 (d). the current Consolidated Interline Safety Agreement, and

26.1154 (e). airline and itinerant radio frequencies and radio procedures.

26.116. Aeronautical Experience—Applicant shall have

26.1160 (a). performed satisfactory service as a junior airport control tower operator for the year immediately preceding the date of application for rating as associate control tower operator, provided the 3 months immediately preceding such application shall have been served satisfactorily at the airport for which applicant seeks to be rated, or have

26.1161 (b). performed satisfactory service as a junior airport control tower operator for the 6 months immediately preceding the date of application for rating as associate control tower operator, provided, however, that the 3 months immediately preceding such application shall have been served satisfactorily at the airport for which applicant seeks to be rated, and provided further that the applicant has served satisfactorily as an airport control tower operator for a period of one year during the 3 years immediately preceding the date of his application, or have

26.1162 (c). performed satisfactory service for the 6 months immediately preceding such application as the operator of the control tower at the airport for which he seeks to be rated, or have

26.1163 (d). performed satisfactory service for one year of the 2 years immediately preceding such application (1) as the operator of an airport control tower, (2) as a fixed base operator, (3) in the operations department of a certificated airline, or (4) as a pilot with at least a commercial pilot competency certificate, and

26.1164 (e). shall possess an appropriate valid radio license issued by the Federal Communications Commission.

26.117. Approval by Examining Board.

26.1170 (a). An applicant shall be given an examination by a board appointed by a designated representative of the Bureau and composed of at least 3 members, one selected from the airport management and the others from airline operation departments, Bureau representatives and military aviation units on the airport or from among other competent aeronautical officials having personal knowledge of the qualifications of the applicant and the duties to be performed.

26.1171 (b). The applicant must receive the approval in writing of a majority of the members of such board before consideration will be given for issuance of a certificate of competency to him.

26.1172 (c). The representative of the Secretary will be the chairman of the examining board and will submit to the Secretary, along with the application, a written report embodying his own opinion and the consensus of the board of examiners as to the qualifications of the applicant for performing the duties of the service for which he seeks rating.

26.12. Senior Airport Control Tower Operator Rating: To be eligible for a senior airport control tower operator rating, an applicant shall comply with the following minimum requirements:

26.120. Age—Same as CAR 26.110.

26.121. Character—Same as CAR 26.101.

26.122. Citizenship—Same as CAR 26.112.

26.123. Education—Same as CAR 26.103.

26.124. Physical Requirements—Same as CAR 26.114.

26.125. Aeronautical Knowledge—Same as CAR 26.115.

26.126. Aeronautical Experience—Applicant shall have

26.1260 (a). Performed satisfactory service as an associate airport control tower operator for at least one year during the 18 months immediately preceding the date of application for rating as senior airport control tower op-



erator, provided, however, that at least 3 months of the 6 months' period immediately preceding such application shall have been at the airport for which he seeks to be rated, or have

26.1261 (b). performed satisfactory service for the 6 months immediately preceding application as the operator in charge of the control tower at the airport for which he seeks to be rated, and shall

26.1262 (c). demonstrate satisfactorily his ability to supervise and manage all activities of an airport control tower, including the preparation of such reports as may be required from time to time by the airport management and the Secretary, and

26.1263 (d). Same as CAR 26.1164.

26.127. Approval by Examining Board—Same as CAR 26.117.

## 26.2. AIRPORT CONTROL TOWER OPERATOR CERTIFICATE

26.20. *Provision for Issuance:* An appropriate airport control tower operator certificate of competency will be issued by the Secretary, upon approval of an application made and satisfactory proofs submitted, to a natural person who upon inspection and examination is found by the Secretary to meet the appropriate minimum requirements prescribed in CAR 26.1, and who is therefore rated as competent to control the movements of aircraft on and in the vicinity of the airport at which his competency to control such aircraft has been demonstrated.

26.21. *Application:* Application for an airport control tower operator certificate of competency, subscribed under oath, shall be made to the Secretary upon a form supplied for that purpose.

26.210. *Application to Amend:* When any change in an airport control tower operator competency rating is desired, the applicant shall file a written request therefor with the Secretary through a designated inspector or airway traffic control manager of the Bureau.

26.211. *Proceeding to Amend:* A proceeding to amend an airport control tower operator rating may be instituted by the Secretary when, in his opinion, the operator is no longer competent in respect to some matter specified in the certificate. Notice of such proceeding shall be addressed to such operator with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.

26.22. *Issuance:* Upon approval of an application duly made, proofs submitted and examinations and tests satisfactorily completed, an airport control tower operator certificate of competency will be issued in an appropriate form.

26.220. *Temporary Certificate:* Following application made for an airport control tower operator certificate of competency, but prior to approval thereof and issuance of the certificate, an appropriate temporary certificate may be issued by the examining Bureau representative. This temporary certificate shall remain in force until the appropriate airport control tower operator certificate of competency is issued or denied by the Secretary, but not to exceed a period of 60 days.

26.23. *Display:* An airport control tower operator certificate shall be kept in the personal possession of the operator at all times when he is on duty in connection with the control of aircraft, and shall be presented upon the demand of any authorized official or employee of the Department of Commerce or of any State or municipal official charged with the duty of enforcing local laws or regulations involving Federal compliance, or upon the reasonable request of any other person.

26.24. *Duration:* The airport control tower operator certificate, unless sooner suspended or revoked, shall remain in force for one year from date of issuance, and only for the airport mentioned in the certificate: *Provided, however,* That an airport control tower operator certificate, regardless of rating, shall revert to that of junior airport control tower operator rating for at least 2 months subsequent to the

entering upon duty of the holder thereof at a different airport control tower, after which period application may be made for reinstatement of the rating previously held, but for the airport for which applicant seeks to be rated. The operator need not take the physical examination required in CAR 26.104 if he has satisfactorily passed the same within the preceding 12 months.

26.25. *Renewal:* An airport control tower operator certificate may be renewed upon application made within 45 days prior to expiration for the same duration as the original upon showing of

26.250 (a). a satisfactory physical examination, as provided in CAR 26.104, by a designated medical examiner of the Bureau, completed within the 45 days preceding expiration, and

26.251 (b). a letter from his employer or superior officer to the effect that the holder thereof has satisfactorily performed his duties in the airport control tower for at least 3 months immediately preceding date of application for renewal.

26.252. *Reinstatement:* In the event of an emergency which prevents renewal prior to expiration, and upon a showing thereof satisfactory to the Secretary, the applicant may have his airport control tower operator certificate validated in accordance with the provisions for renewal in CAR 26.25, provided such examinations and tests (including the medical examination within 45 days prior to the application for reinstatement) appropriate to the rating as the Secretary may deem necessary, are satisfactorily accomplished.

26.26. *Non-Transferability:* An airport control tower operator certificate is not transferable.

26.27. *Suspension or Revocation:* An airport control tower operator certificate may be suspended or revoked by reason of any of the following on the part of the holder thereof:

26.270 (a). Violating any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

26.271 (b). Carelessness or inattention to duty affecting safety.

26.272 (c). Unsound physical or mental condition.

26.273 (d). Any demonstration of incompetency in the operation or supervision of an airport control tower.

26.274 (e). Being, or knowingly permitting, a superior, subordinate, fellow operator or other person to be under the influence of, or using, or having personal possession of intoxicating liquor, cocaine, or other habit-forming drug, while present in the airport control tower or on duty directing or controlling aircraft movements.

26.275 (f). Refusing to exhibit his certificate upon proper demand.

26.276 (g). Making any false statements in an application for a certificate or in any report required by the Secretary.

26.277 (h). Performing any act in connection with the control and direction of aircraft which is contrary to the public safety or interest, or detrimental to the morale of pilots or other persons.

26.278 (i). Using or displaying his certificate for any fraudulent purpose.

26.28. *Surrender:* Upon notice from the Secretary of the suspension or revocation of any airport control tower operator certificate, the holder thereof shall promptly return such certificate to the Secretary.

26.29. *Re-Application:* An applicant for an airport control tower operator certificate who has failed to successfully accomplish the prescribed theoretical or practical tests may apply for re-examination at any time after the expiration of 90 days from the date of such failure.

## 26.3. EXAMINATIONS AND TESTS

26.30. *General:* The examinations and tests prescribed in the foregoing regulations will be conducted by an authorized officer or employee of the Department of Commerce or by a properly qualified person designated for the purpose by the Secretary. The Secretary may, in his discretion and at any time, require any applicant or airport control tower operator



certificate holder to undergo a re-examination in any theoretical or practical test prescribed as a requisite for such certificate.

26.31. *Time and Place:* All examinations and tests will be held at such times and places as the Secretary may designate.

26.32. *Physical Examination:* In connection with the original issuance of any airport control tower operator certificate the physical examination prescribed shall be accomplished by a medical examiner of the Department of Commerce duly authorized to so examine applicants for such certificate before any practical or theoretical test or other examination will be given, and shall be completed within the 60 days preceding the date of filing application for such certificate.

26.33. *Inspection:* The applicant for any airport control tower operator certificate shall offer full cooperation in respect of any inspection or examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of such certificate.

26.34. *Standard of Performance:* All practical or theoretical examinations and tests shall be accomplished to the satisfaction of the Secretary and the minimum passing grade in any subject of examination or test shall be 70 per cent.

26.35. *Reports:* The person giving any examination or test in behalf of the Secretary shall promptly report the result thereof upon the appropriate form to the Secretary.

#### 27. AIRLINE DISPATCHER RATING

- 27.0 Provision for Rating
- 27.1 Minimum Requirements
- 27.10 Junior Dispatcher Rating
- 27.11 Associate Dispatcher Rating
- 27.12 Senior Dispatcher Rating
- 27.2 Airline Dispatcher Certificate
- 27.20 Provision for Issuance
- 27.21 Application
- 27.22 Issuance
- 27.23 Display
- 27.24 Duration
- 27.25 Renewal
- 27.26 Non-Transferability
- 27.27 Suspension or Revocation
- 27.28 Surrender
- 27.29 Re-Application
- 27.3 Examinations and Tests
- 27.30 General
- 27.31 Time and Place
- 27.32 Inspection
- 27.33 Standard of Performance
- 27.34 Reports

#### CHAPTER 27. AIRLINE DISPATCHER RATING

27.0 PROVISION FOR RATING: Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide by regulation for the rating of all airmen serving in connection with aircraft of the United States as to their qualifications for such service and for the issuance of airmen certificates and such other certificates and regulations as the Secretary deems necessary in administering the Act, airline dispatchers will be certificated in accordance with the provisions of the following paragraphs.

27.1 MINIMUM REQUIREMENTS: To be eligible for an airline dispatcher competency rating, an applicant shall comply with the following minimum requirements.

27.10 *Dispatcher Rating:* To be eligible for a dispatcher rating:

27.100. Age—Applicant shall be at least 23 years of age.

27.101. Character—Applicant shall be of good moral character.

27.102. Citizenship—Applicant shall be

27.1020 (a). A citizen of the United States, or

27.1021 (b). A citizen of a foreign country which grants reciprocal commercial airmen privileges to citizens of the United States on equal terms and conditions with citizens of such foreign country, or

27.1022 (c). An alien who has filed his declaration of intention to become a citizen of the United States and notifies the Secretary of the serial number of such declaration and of the date thereof and of the court in which it is filed;

*Provided,* That the certificate of competency is, in such case, subject to revocation if the holder does not from time to time keep the Secretary advised of the status of the proceedings in court and does not diligently and successfully prosecute them and become admitted as a citizen.

27.103. Education—Applicant shall be able to read, write and understand the English language, and speak the same without accent or impediment of speech that would interfere with two-way radio conversation.

27.104. Aeronautical Knowledge—Applicant shall be familiar with and shall accomplish a satisfactory written examination on:

27.10400 (a). The provisions of CAR 40 and 61 and those parts of CAR 60 which apply to dispatching. In each case the applicant shall understand the relation of each provision to airline operation.

27.10401 (b). The characteristics of at least one make and model of airline aircraft, with particular reference to gross load, pay loads under conditions of various fuel loads, fuel capacity, fuel consumption at specified power outputs, speed-power output, altitude charts, and loading charts.

27.10402 (c). The general system of weather collection and dissemination.

27.10403 (d). Weather map, forecast and sequence abbreviations, symbols and nomenclature. The general principles of modern methods of weather analysis including the application of data obtained from airplane weather observations and meteorological data reported from observations made by pilots engaged in airline flights.

27.10404 (e). Cloud forms, including average heights of their bases and approximate upper and lower limits within which their bases and tops respectively occur.

27.10405 (f). Weather conditions adversely affecting aeronautical activities, the circumstances under which they occur, how these are ascertained and located, and elementary principles of forecasting the conditions.

27.10406 (g). The influence of terrain upon meteorological conditions and developments, and the relation thereof to airline flight operations.

27.10407 (h). Elementary principles of radio communications and radio range operations and weather conditions adversely affecting each.

27.10408 (i). Department of Agriculture Weather Bureau Circular "N", Instructions for Airway Meteorological Service, and all amendments thereto.

27.10409 (j). Air navigation facilities in use on the civil airways, including rotating beacons, course lights, radio ranges, radio marker beacons and intermediate fields.

27.10410 (k). Elementary principles of aircraft navigation, and use and limitations of sensitive type altimeters particularly with respect to barometric settings.

27.105. Aeronautical Experience—Applicant shall

27.1050 (a). have been listed as a dispatcher in the airmen competency letter of an airline and have served as a dispatcher for such airline for at least 6 months of the 18 months' period immediately preceding application, or

27.1051 (b). have served as a first or second pilot for a certificated airline for at least one year of the 3 years immediately preceding application and have served as a dispatcher for such airline for at least 3 months of the 18 months' period immediately preceding application, or

27.1052 (c). have served for 2 years of the 4 years immediately preceding application in the operations department of a certificated airline, or

27.1053 (d). be a graduate of an airline dispatcher course of a certificated flying school, which course is deemed by the Secretary to offer the equivalent of CAR 27.1050 through 27.1052.

27.1054 (e). On the effective date of these regulations and for 6 months thereafter an applicant employed or formerly employed for the purpose of the dispatching and flight control of aircraft in airline service may be deemed by the Secretary to have met the requirements of CAR 27.105, and if



so deemed, shall be presumptively entitled to an airline dispatcher rating.

27.1055. Any person now or formerly employed by an airline for the purpose of dispatching and flight control of aircraft in airline service for the periods specified either in CAR 27.1050 or CAR 27.1051 may be deemed by the Secretary to have met these respective requirements as to prior dispatcher service.

27.106. Aeronautical Skill—Applicant shall be able:

27.1060 (a). To make a reasonably accurate and intelligent analysis of a series of Weather Bureau 6-hourly maps, in accordance with modern methods, and forecast therefrom the subsequent weather conditions pertinent to flying operations.

27.1061 (b). To make an accurate and detailed analysis, in accordance with modern methods, of weather conditions prevailing in the general neighborhood of a specified civil airway from a series of Weather Bureau 6-hourly maps and sequency reports, and forecast accurately subsequent weather trends pertinent to flying operations, with particular reference to specified terminals.

## 27.2 AIRLINE DISPATCHER CERTIFICATE

27.20. *Provision for Issuance:* An airline dispatcher certificate of competency will be issued by the Secretary to a natural person, who is an applicant therefor, after approval of an application made and proofs submitted in connection therewith and, if upon inspection and examination, said applicant is found by the Secretary to meet the minimum requirements prescribed in CAR 27.1. (However, such person shall not dispatch airline aircraft until he has qualified as to route competency in accordance with the provisions of CAR 61.553.)

27.21. *Application:* Application for an airline dispatcher certificate, subscribed under oath, shall be made to the Secretary upon a form supplied for the purpose.

27.22. *Issuance:* Upon approval of an application duly made, proofs submitted, and examinations and tests satisfactorily completed, an airline dispatcher certificate of competency will be issued in an appropriate form.

27.220. *Temporary Certificate:* Following application made for an airline dispatcher certificate of competency, but prior to approval thereof and issuance of the certificate, a temporary dispatcher certificate may be issued by the local Bureau airline inspector.

27.23. *Display:* An airline dispatcher certificate shall be kept in the personal possession of the holder thereof at all times when he is on duty in connection with the dispatching of airline aircraft, and shall be presented upon the demand of any authorized official or employee of the Department of Commerce or of any State or municipal official charged with the duty of enforcing local laws or regulations involving Federal compliance, or upon the reasonable request of any other person.

27.24. *Duration:* An airline dispatcher certificate, unless sooner suspended or revoked in accordance with the provisions of CAR 27.27, will remain in force for one year after the date of issue.

27.25. *Renewal:* An airline dispatcher certificate may be renewed for additional period of one year upon application within 45 days of expiration and upon proof that the holder thereof has been listed as a dispatcher in the airmen competency letter of an airline and has served as a dispatcher for such airline for at least six months of the 12 months' period immediately preceding expiration of such certificate, or has had experience deemed equivalent by the Secretary.

27.250. *Reinstatement:* In the event of an emergency which prevents renewal prior to expiration, and upon a showing thereof satisfactory to the Secretary, the applicant may have his airline dispatcher certificate validated in accordance with the provisions for renewal in CAR 27.25.

27.26. *Non-Transferability:* An airline dispatcher certificate is not transferable.

27.27. *Suspension or Revocation:* An airline dispatcher certificate may be suspended or, after hearing, revoked by rea-

son of any of the following, on the part of the holders thereof:

27.270 (a). Any false statement in an application for a certificate or in any report required by the Secretary.

27.271 (b). Using or displaying the certificate for any fraudulent purpose.

27.272 (c). Refusal to exhibit the certificate upon proper demand.

27.273 (d). Carelessness or inattention to duty affecting safety.

27.274 (e). Any demonstration of incompetency in the dispatch of airline aircraft.

27.275 (f). Being under the influence, or using, or having personal possession, of intoxicating liquor, cocaine, or other habit-forming drugs while on duty.

27.276 (g). Doing any act in connection with the dispatch of airline aircraft which is contrary to the public safety or interest.

27.277 (h). Violation of any provision of the Air Commerce Act or any of the rules or regulations duly issued thereunder.

27.28. *Surrender:* Upon notice from the Secretary of the suspension or revocation of his airline dispatcher certificate, the holder shall immediately return such certificate to the Secretary.

27.29. *Re-Application:* An applicant for an airline dispatcher certificate of competency who has failed to successfully accomplish the prescribed theoretical or practical tests may apply for re-examination at any time after the expiration of 30 days, from the date of such failure.

## 27.3. EXAMINATIONS AND TESTS

27.30. *General:* The examinations and tests prescribed in the foregoing regulations will be conducted by an authorized officer or employee of the Department of Commerce or by a properly qualified person designated for the purpose by the Secretary. The Secretary may, in his discretion and at any time, require any applicant or airline dispatcher certificate holder to undergo a re-examination in any theoretical or practical test prescribed as requisite for such certificates.

27.31. *Time and Place:* All examinations and tests will be held at such times and places as the Secretary may designate.

27.32. *Inspection:* The applicant for an airline dispatcher certificate of competency shall offer full cooperation in respect of any inspection and examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of an airline dispatcher certificate of competency.

27.33. *Standard of Performance:* All practical or theoretical examinations and tests shall be accomplished to the satisfaction of the Secretary and the minimum passing grade in any subject of examination or test shall be 70 per cent.

27.34. *Reports:* The person giving any examination or test in behalf of the Secretary shall promptly report the result thereof upon an appropriate form to the Secretary.

## 40. SCHEDULED AIRLINE CERTIFICATION (INTERSTATE)

40.0	Provision for Certification
40.1	General Minimum Requirements
40.10	Economic Strength
40.11	Route
40.12	Aircraft
40.13	Airmen
40.14	Operations Manual
40.15	Maintenance Manual
40.16	Schedules
40.2	Passenger Minimum Requirements
40.20	Route: Visual-Contact Day
40.21	Route: Visual-Contact Night
40.22	Route: Instrument and/or Over the Top
40.23	Aircraft: Visual-Contact Day
40.24	Aircraft: Visual-Contact Night
40.25	Aircraft: Instrument and/or Over the Top
40.26	Airmen: Visual-Contact Day
40.27	Airmen: Visual-Contact Night
40.28	Airmen: Instrument and/or Over the Top
40.29	Miscellaneous Requirements



## 40. SCHEDULED AIRLINE CERTIFICATION (INTERSTATE)—Continued

- 40.2 Goods Minimum Requirements
- 40.30 Route: Visual-Contact Day
- 40.31 Route: Visual-Contact Night
- 40.32 Route: Instrument and/or Over the Top
- 40.33 Aircraft: Visual-Contact Day
- 40.34 Aircraft: Visual-Contact Night
- 40.35 Aircraft: Instrument and/or Over the Top
- 40.36 Airmen: Visual-Contact Day
- 40.37 Airmen: Visual-Contact Night
- 40.38 Airmen: Instrument and/or Over the Top
- 40.39 Miscellaneous Requirements
- 40.4 Airline Competency Certificate
- 40.40 Provision for Issuance
- 40.41 Application
- 40.42 Temporary Permit
- 40.43 Issuance
- 40.44 Display
- 40.45 Duration
- 40.46 Non-Transferability
- 40.47 Suspension or Revocation
- 40.48 Surrender
- 40.49 Re-Application
- 40.5 Airline Competency Letters
- 40.50 Provision for Issuance
- 40.51 Application
- 40.52 Temporary Letter
- 40.53 Issuance
- 40.54 Display
- 40.55 Duration
- 40.56 Non-Transferability
- 40.57 Suspension or Revocation
- 40.58 Surrender
- 40.59 Re-Application

## CHAPTER 40. SCHEDULED AIRLINE CERTIFICATION (INTRASTATE)

40.0. **PROVISION FOR CERTIFICATION:** Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the examination and rating of and the issuance of certificates to all airlines engaged in interstate or foreign air commerce as to their qualifications for such service, the following regulations are prescribed for such certification of scheduled airlines engaged in interstate air commerce as to their competency.

40.1. **GENERAL MINIMUM REQUIREMENTS:** To be eligible for a scheduled airline competency certificate, an applicant shall meet and comply with the following general minimum requirements.

40.10. **Economic Strength:** Applicant shall show economic and financial strength sufficient to establish a presumption of ability to operate the airline with reasonable safety as related to the service offered, for a period of at least one year.

40.11. **Route:** Applicant shall show that the route, including any alternate route, over which it proposes to operate is, or prior to operation will be, equipped with such air navigation facilities (including terminal and intermediate airports, intermediate landing fields and ground aids to air navigation) as are deemed by the Secretary to be necessary for safe operation as related to the service offered, provided that on the route to any alternate terminal such operation may be approved provided a signal from the alternate terminal range can be heard.

40.12. **Aircraft:** Applicant shall show certificated aircraft as provided in CAR 04, of a model and number deemed by the Secretary to be necessary for safe operation as related to the service offered, the route traversed, and the operating and maintenance procedures and techniques proposed.

40.13. **Airmen:** Applicant shall show certificated airmen (including both flight and ground personnel) of kind, grade, and number deemed by the Secretary to be necessary for safe operation as related to the service offered, the route traversed, the aircraft used, and the operating and maintenance procedures and techniques proposed.

40.14. **Operations Manual:** Applicant shall show an operations manual, prepared for the use of its airmen, which fully details the operating and communications methods, procedures and techniques proposed for its airline.

40.15. **Maintenance Manual:** Applicant shall show a maintenance manual or suitable equivalent prepared for the use of its airmen and other maintenance personnel which adequately defines the maintenance methods, procedures and technique proposed for its airline operations.

40.16. **Schedules:** Applicant shall show proposed schedules set up with due regard to sufficient time for the adequate servicing of fuel and oil at intermediate stops, to prevailing winds, and on the basis of a cruising speed of the aircraft at not to exceed that corresponding to the specified cruising power output of the engines as specified in the operations manual.

40.2. **PASSENGER MINIMUM REQUIREMENTS:** To be eligible for a scheduled airline competency certificate for the carriage of persons in interstate air commerce, an applicant, in addition to meeting the minimum requirements provided for in CAR 40.1, shall meet and comply with the following minimum requirements prescribed for the particular kind of operation proposed.

40.20. **Route Requirements: Visual-Contact Day Operation**

40.200. **Airway—**Applicant shall show that the regular route over which the proposed operations will be conducted is, or prior to authorization will be, within the limits of a civil airway. (If applicant's proposed route does not lie within the limits of a civil airway, a petition requesting that a civil airway be designated to embrace such route may be made simultaneously with the airline certificate application.)

40.201. **Airports—**Applicant shall show that the airport to be used at each proposed route terminal and scheduled intermediate stop is possessed of a valid airport competency rating with relation to each aircraft which applicant proposes to use in its operation.

40.202. **Public Protection—**Applicant shall show that reasonable and adequate facilities and safety devices (including protection from revolving aircraft propellers) are provided for the protection of the public at each terminal and scheduled intermediate stop.

40.203. **Intermediate Fields—**Applicant shall show intermediate fields, available for safe landings with the load authorized for the route or part thereof, located at not more than 100 mile intervals along the proposed route provided that at the discretion of the Secretary, intermediate fields may be permitted or required at other than 100 mile intervals.

40.204. **Refueling Facilities—**Applicant shall show that adequate refueling facilities, including equipment to test gasoline storage tanks for the presence of water and to remove any water or condensation found therein, are provided at each terminal, scheduled intermediate stop and intermediate field where refueling is contemplated.

40.205. **Radio Facilities—**Applicant shall show a two-way ground-to-aircraft radio telephone communication system at each terminal and at such points as may be deemed necessary by the Secretary to insure satisfactory communications over the entire route under normal operating conditions. Such system shall be independent of radio facilities provided by Federal or other governmental agencies.

40.206. **Weather Reporting—**Applicant shall show weather reporting services at the proposed terminals and enroute, adequate to insure sufficient weather reports prepared from observations made and released by the United States Weather Bureau or by a source approved by it.

40.21. **Route Requirements: Visual-Contact Night Operation**

40.210. **Airway—**Applicant shall meet the requirements of CAR 40.200 and, in addition, shall show that the proposed route is equipped with such airway beacons and obstruction lights as are deemed by the Secretary to be adequate for safe airline operation at night.

40.211. **Airports—**Applicant shall meet the requirements of CAR 40.201 and, in addition, shall show that the airport to be used at each proposed terminal and scheduled intermediate stop is equipped with such lighting facilities as are deemed by the Secretary to be adequate for safe airline operation at night.

40.212. **Public Protection—**Same as in CAR 40.202.

40.213. **Intermediate Fields—**Applicant shall meet the requirements of CAR 40.203 and, in addition, shall show that such intermediate fields are equipped with lighting facilities as required by CAR 40.211.



40.214. Refueling Facilities—Same as in CAR 40.204.

40.215. Radio Facilities—Same as in CAR 40.205.

40.216. Weather Reporting—Same as in CAR 40.206.

**40.22. Route Requirements: Instrument and/or Over the Top Operation**

40.220. Airway—Applicant shall meet the requirements of CAR 40.200 for day operation, or of CAR 40.210 for night operation. In addition, for either day or night operation, applicant shall show that the proposed route is equipped with such radio range beacons (or equivalent facilities) projecting courses over the proposed route, as are deemed by the Secretary to be adequate for safe airline operation. Application shall also show other radio navigational aids (including radio markers) as may be deemed necessary by the Secretary.

40.221. Airports—For day operation applicant shall show that the airport to be used at each proposed route terminal, scheduled intermediate stop and alternate terminal is possessed of a valid airport competency rating with relation to each aircraft which applicant proposes to use in its operation. For night operation applicant shall meet the foregoing requirements and, in addition, shall show that the proposed terminal, scheduled intermediate stop, and alternate, airports are provided with such lighting facilities as are deemed by the Secretary to be adequate for safe airline operation at night.

40.222. Public Protection—Same as in CAR 40.202.

40.223. Intermediate Fields—Same as in CAR 40.203 for day operation, and as in CAR 40.213 for night operation.

40.224. Refueling Facilities—Same as in CAR 40.204.

40.225. Radio Facilities—Same as in CAR 40.205.

40.226. Weather Reporting—Same as in CAR 40.206.

**40.23. Aircraft Requirements: Visual-Contact Day Operation**

40.230. If Single Engine Operation over Land—Applicant shall show land aircraft of a model and number necessary for safe operation, or applicant may show a similar number of water aircraft if the route to be flown over is such that the aircraft can, at all times, reach open water deemed suitable by the Secretary for a safe landing in the event of complete power failure. Single-engine aircraft may be operated over civil airways provided such airways are deemed by the Secretary to have suitable landing terrain.

40.231. If Single-Engine Operation over Water—Applicant shall show water aircraft of a model and number necessary for safe operation, or applicant may show a similar number of land aircraft if the route to be flown over is such that the aircraft can, at all times, reach land deemed suitable by the Secretary for a safe landing in the event of complete power failure.

40.232. If Multi-Engine Operation over Land—Applicant shall show aircraft of a model and number necessary for safe operation. Applicant shall also show that such aircraft (other than those specifically listed as in scheduled airline service by the applicant prior to January 1, 1935) to be used on the proposed route or part thereof are capable, with any one engine completely out of commission, of maintaining level flight with authorized load for the route or part thereof at an altitude of at least 1,000 feet above the highest obstruction to flight on the valley level of such route or part thereof on which the aircraft will be operated.

40.233. If Multi-Engine Operation over Water—Applicant shall show aircraft of a model and number necessary for safe operation. Applicant shall also show that such aircraft, which are to be used on the proposed route or part thereof are capable, with any one engine completely out of commission, of maintaining level flight with authorized load at an altitude of at least 1,000 feet above the water. No multi-engine land aircraft shall be operated, over water, beyond gliding distance from shore without the aid of power, unless such aircraft is equipped with a fully retractable landing gear with one or more suitable emergency exits located in the upper half of the fuselage, with life preservers or other adequate flotation devices readily available for each person on board, with a Very's pistol and

cartridges or equivalent signal equipment deemed suitable by the Secretary, and with radio equipment as required by CAR 40.253, 40.2530, and 40.2531. The landing gear shall be in the retracted position in the event of an emergency landing upon water. The requirements of flotation devices and signal equipment are not applicable where the operation over water is merely that of landings and take-offs, provided there is marine rescue equipment deemed suitable by the Secretary.

40.234. Number of Aircraft—Applicant shall show aircraft, certificated as provided in CAR 04.53, of a number sufficient to permit the maintenance of all schedules proposed, as provided for in CAR 40.16.

40.235. Radio Equipment—Applicant shall show that each aircraft is equipped with an approved two-way radio telephone having sufficient power to permit communication, under normal operating conditions, with at least one ground station used or to be used by the applicant on the regular or alternate route, and capable of communication with other aircraft of the applicant in flight. In addition, each aircraft shall be provided with at least one radio receiving system capable of receiving radio range beacon signals and weather broadcasts.

40.236. Hangar Facilities—Applicant shall show hangar or other facilities adequate for the proper maintenance of the aircraft, engines, equipment and parts.

40.237. Shop Facilities—Applicant shall show shop facilities (including facilities for servicing, repair, and overhaul) adequate for the proper maintenance of all aircraft, engines and equipment used.

40.238. Inspection and Overhaul Organization and Procedures—Applicant shall show inspection and overhaul organization, procedures and techniques adequate for the proper maintenance of all aircraft, engines and equipment used.

**40.24. Aircraft Requirements: Visual-Contact Night Operation**

NOTE.—Single-engine aircraft may not be used in night operation with passengers.

40.240. If Operation over Land—Applicant shall show multi-engine land aircraft, which meet the flight performance requirements of CAR 40.232, and of a number necessary for safe operation as provided for in CAR 40.234.

40.241. If Operation over Water—Applicant shall show multi-engine land aircraft, which meet the flight performance and equipment requirements of CAR 40.233, and of a number necessary for safe operation as provided for in CAR 40.234.

40.242. Number of Aircraft—Same as in CAR 40.234.

40.243. Radio Equipment—Same as in CAR 40.235.

40.244. Hangar Facilities—Same as in CAR 40.236.

40.245. Shop Facilities—Same as in CAR 40.237.

40.246. Inspection and Overhaul Organization and Procedures—Same as in CAR 40.238.

**40.25. Aircraft Requirements: Instrument and/or Over the Top Operation**

NOTE.—Single-engine aircraft may not be used in an instrument or over the top operation with passengers.

40.250. If Operation over Land—Applicant shall show multi-engine aircraft of a model and number necessary for safe operation. Applicant shall also show that such aircraft (other than those specifically listed as in scheduled airline service by the applicant prior to January 1, 1935) to be used on the proposed route, or part thereof, are capable, with any one engine completely out of commission, of maintaining level flight, with authorized load for the route or part thereof, at an altitude equivalent to 1000 feet above the highest part of the terrain on the proposed instrument course of the route, or part thereof.

40.251. If Operation over Water—Same as in CAR 40.241.

40.252. Number of Aircraft—Same as in CAR 40.234.

40.253. Radio Equipment—Same as in CAR 40.235 and, in addition, applicant shall show that there is installed in each aircraft to be used in instrument and/or over the top opera-



tion (during day or night) over the proposed route, or part thereof, one additional separate radio receiving system capable of receiving radio range signals and weather broadcasts. Such receiver system shall normally operate from the main source of electrical supply of the aircraft but, in event of failure of the normal power source, shall be capable of being switched to operate from an independent power source. This system shall include an independent power source capable of operating such receiver continuously for a period of at least 4 hours. It is also required that such receiver operate from an independent antenna or from either of two antennae. Two sets of headphones shall be carried in the aircraft at all times.

40.2530. Radio Direction Finder—There shall also be installed in such aircraft an approved radio direction finder, covering at least the frequency range of 200 to 400 kilocycles. The design of the radio direction finder shall be such as to permit its regular operation in the taking of line bearings on any station to which the direction finder may be tuned without altering the course of the aircraft. The radio direction finder shall also be provided with means to eliminate, insofar as possible consistent with the advancement of the art, that type of interference commonly known as rain, snow, sleet or dust static. The radio direction finder shall provide means for audible reception of radio range and weather broadcast messages. It may be installed in lieu of the emergency receiver required in CAR 40.253 provided that an independent power source equal to that described therein for such receiver is employed on either the beacon receiver required therein or on this radio direction finder. (Effective January 1, 1938).

40.2531. Radio Anti-Static Antenna—There shall also be installed on such aircraft an approved radio antenna system, which has for its purpose the collection of radio range signals, weather broadcast and emergency messages transmitted within the frequency range of 200 to 400 kilocycles. The design of this antenna system shall be such as to eliminate insofar as possible, consistent with the advancement of the art, that type of interference commonly known as rain, snow, sleet or dust static. This antenna system shall be designed to operate efficiently when used in conjunction with a receiver installed aboard such aircraft which has for its primary purpose the reception of radio range signals, weather broadcast and emergency messages.

40.254. Hangar Facilities—Same as in CAR 40.236.

40.255. Shop Facilities—Same as in CAR 40.237.

40.256. Inspection and Overhaul Organization and Procedures—Same as in CAR 40.238.

40.26. *Airmen Requirements: Visual-Contact Day Operation*

40.260. Number—Applicant shall show airmen of a number sufficient to permit the maintaining of all schedules proposed, under safe operating conditions.

40.261. First Pilots—Applicant shall show that prior to the issuance of the airline certificate all persons employed to serve as first pilots for the airline meet the following minimum requirements for qualification as to aircraft and route competency.

40.2610 (a). Each first pilot shall be possessed of a valid airline pilot competency rating with specifications or ratings indicating competency to pilot aircraft of each model to be used by him in scheduled operation.

40.2611 (b). Each first pilot, within the 6 months immediately preceding his qualification for the route, shall have made one one-way trip without passengers over the proposed route or part thereof on which he will pilot aircraft for applicant, landing at least once at each terminal, scheduled intermediate stop and intermediate field. If landings cannot be effected at each intermediate field, then the pilot shall make a ground examination, or where impracticable by reason of field conditions, a visual examination from the air at a safe low altitude, of each such field on which no landing was made and shall render a written inspection report thereon promptly to the Secretary; in the case of a visual examination he shall submit to the Secretary

a sketch of the field setting forth its condition, obstructions and surrounding terrain. During the preliminary trip, the survey and landing may be accomplished by 2 or more first pilots flying together, provided each lands the aircraft at every terminal, intermediate stop and intermediate field.

40.2612 (c). Each first pilot shall have made 2 round trips, in addition to the trip required by CAR 40.2611 over the proposed route or part thereof on which he will pilot aircraft for applicant as first pilot, without passengers, or shall have made 3 round trips in addition to that required by CAR 40.2611 as second pilot, with or without passengers, within the 12 months immediately preceding his qualification for such route.

40.2613 (d). During these trips required by CAR 40.2611 and CAR 40.2612 the flights shall be visual-contact and the visibility shall be not less than 5 miles as observed from the aircraft.

40.2614 (e). Each first pilot to be qualified as to route competency with respect to an alternate route shall have complied with the provisions of CAR 40.2611 and 40.2613 as applied to such alternate route.

40.262. Second pilots—Applicant shall show that each person employed to serve as a second pilot for the airline is possessed of at least a valid commercial pilot competency rating and before serving as second pilot in any aircraft in scheduled airline service shall have demonstrated, to an airline inspector representing the Secretary or to a check pilot or instructor of the airline duly authorized by the Secretary, his ability to take-off and land such aircraft by making at least 3 satisfactory take-offs and landings in each model of aircraft in which he is to serve. Six months after the effective date of these regulations each applicant for or holder of an airline competency certificate will be required to show that each such person is possessed of a valid instrument rating, unless possessed of a valid airline pilot competency rating.

40.263. Airline Dispatchers—Applicant shall show that each person assuming aircraft dispatcher duties for the airline is familiar with the route or part thereof over which he will dispatch aircraft, the weather characteristics and phenomena peculiar to such route, the nature and peculiarities of the terrain and of obstructions to flight, the air navigation facilities available on the ground and in the aircraft, the contents of the operations manual of the proposed airline and the aircraft limitations specified in the certificates of the aircraft proposed for use. Six months after the effective date of these regulations each applicant for or holder of an airline competency certificate will be required to show that each such person is possessed of a valid and appropriate airline dispatcher competency rating.

40.27. *Airmen Requirements: Visual-Contact Night Operation*

40.270. Number—Same as in CAR 40.260.

40.271. First Pilots—Same as in CAR 40.261, except that at least one trip required by CAR 40.2612 shall have been made between the hours of sunset and sunrise, except that for qualification on an alternate route flights shall be made in accordance with CAR 40.2614.

40.272. Second Pilots—Same as in CAR 40.262.

40.273. Airline Dispatchers—Same as in CAR 40.263.

40.28. *Airmen Requirements: Instrument and/or Over the Top Operation*

40.280. Number—Same as in CAR 40.260.

40.281. First Pilots—Same as in CAR 40.261 and, in addition, applicant shall show that each first pilot, for whom instrument authorization is sought, has demonstrated to an airline inspector representing the Secretary or to a check pilot or instructor of the airline duly authorized by the Secretary, his capability with respect to the following:

40.2810 (a). Familiarity with the aircraft, including demonstration of ability to maneuver such aircraft with the load authorized for the route or part thereof, with any one engine fully throttled, at an altitude equivalent to 1000 feet above the highest part of the terrain on the proposed instrument



course of the route, or part thereof, to be flown by the pilot in airline service.

40.2811 (b). Familiarity with the route and with instruments, including demonstration of ability to fly solely by instruments, under actual or simulated conditions, over the route for which qualification is sought.

40.2812 (c). Familiarity with procedures, including demonstration of ability to accomplish a let-down-through by instruments, according to the procedure specified in the appropriate competency letter, at one station at least, on the route, in each model of aircraft to be used by the pilot in airline operation. Such demonstrations as to the other stations as deemed necessary by the Secretary may be made to an airline inspector representing the Secretary, or to a check pilot or instructor of the airline duly authorized by the Secretary, under simulated conditions or by equivalent means approved by the Secretary.

40.282. Second Pilots—Are required for all instrument operations and shall meet the minimum requirements of CAR 40.262.

40.283. Airline Dispatchers—Same as in CAR 40.263.

40.29. *Miscellaneous Requirements*

40.290. Weather Minimums—Authorization of ceiling and visibility minimums for purposes of flight clearance and for transition from instrument to visual-contact flights and vice-versa will be made by the Secretary and will be based upon the following considerations affecting the clearance and completion of the flight:

(a) the terrain conditions affecting the flight area necessary for the working out of an approach and let-down-through procedure, or for a climb-up-through procedure; and

(b) the skill and experience of dispatcher personnel; and

(c) the skill and experience of pilot personnel; and

(d) the model and maneuverability of the aircraft; and

(e) the obstructions to flight, considered both vertically and horizontally, in the vicinity of the landing area; and

(f) the quality and quantity of meteorological service and of other ground aids to flight available.

40.291. Airline Operation Skill—Applicant shall demonstrate, during a test period (of not less than 10 days of operation) determined by the Secretary (in which time applicant may in the discretion of the Secretary carry mail or goods, as the case may be, in interstate air commerce), ability to operate with safety a scheduled airline service over the route proposed, with the aircraft and airmen proposed, and by means of the operating and maintenance procedures and techniques proposed. For extensions of established operations the test period will be determined by the Secretary on the basis of the length of the proposed extension, pilot qualifications, air navigation facilities and all other factors affecting the applicant's proposed operation.

40.3. **GOODS MINIMUM REQUIREMENTS:** To be eligible for a scheduled airline competency certificate for the carriage of goods (including mail) in interstate air commerce, an applicant, in addition to meeting the minimum requirements provided for in CAR 40.1, shall meet and comply with the following minimum requirements prescribed for the particular kind of operation proposed:

40.30. *Route Requirements: Visual-Contact Day Operation*

40.300. Airway—Same as in CAR 40.200.

40.301. Airports—Same as in CAR 40.201.

40.302. Public Protection—Same as in CAR 40.202.

40.303. Intermediate Fields—Same as in CAR 40.203.

40.304. Refueling Facilities—Same as in CAR 40.204.

40.305. Radio Facilities—Same as in CAR 40.205.

40.306. Weather Reporting—Same as in CAR 40.206.

40.31. *Route Requirements: Visual-Contact Night Operation*

40.310. Airway—Applicant shall meet the requirements of CAR 40.200 and shall show that the proposed route is provided with such obstruction lights as are deemed by the

Secretary to be adequate for safe airline operation at night. In addition applicant shall show that the proposed route is equipped with such airway beacons as are deemed by the Secretary to be adequate for safe airline operation, or the applicant may show that the proposed route is equipped with such radio range beacons (or equivalent facilities) projecting courses over the proposed route as are deemed adequate by the Secretary for safe airline operation.

40.311. Airports—Same as in CAR 40.211.

40.312. Public Protection—Same as in CAR 40.202.

40.313. Intermediate Fields—Same as in CAR 40.213.

40.314. Refueling Facilities—Same as in CAR 40.204.

40.315. Radio Facilities—Same as in CAR 40.205.

40.316. Weather Reporting—Same as in CAR 40.206.

40.32. *Route Requirements: Instrument and/or Over the Top Operation*

40.320. Airway—Applicant shall meet the requirements of CAR 40.200 for a proposed day operation, or of CAR 40.310 for a proposed night operation. In addition, for either day or night operation, applicant shall show that the proposed route is equipped with radio range beacons (or equivalent facilities) projecting courses over the proposed route, as are deemed to be adequate by the Secretary for safe airline operation. Applicant shall also show other radio navigational aids (including radio markers), as may be deemed necessary by the Secretary.

40.321. Airports—Same as in CAR 40.221.

40.322. Public Protection—Same as in CAR 40.202.

40.323. Intermediate Fields—Same as in CAR 40.203 for day operation, and as in CAR 40.213 for night operation.

40.324. Refueling Facilities—Same as in CAR 40.204.

40.325. Radio Facilities—Same as in CAR 40.205.

40.326. Weather Reporting—Same as in CAR 40.206.

40.33. *Aircraft Requirements: Visual-Contact Day Operation*

40.330. If Single-Engine Operation over Land—Same as in CAR 40.230.

40.331. If Single-Engine Operation over Water—Same as in CAR 40.231.

40.332. If Multi-Engine Operation over Land—Applicant shall show aircraft of a model and number necessary for safe operation. Applicant shall also show that such aircraft to be used on the proposed route or part thereof are capable, with any one engine completely out of commission, of maintaining level flight with the authorized load for the route or part thereof at an altitude of at least 1,000 feet above the airport at each terminal and scheduled intermediate stop on the route or part thereof on which the aircraft will be operated.

40.333. If Multi-Engine Operation over Water—Same as in CAR 40.233.

40.334. Number of Aircraft—Applicant shall show aircraft, certificated as provided in CAR 04.52, of a number sufficient to permit the maintenance of all schedules proposed, as provided for in CAR 40.16.

40.335. Radio Equipment—Same as in CAR 40.235.

40.336. Hangar Facilities—Same as in CAR 40.236.

40.337. Shop Facilities—Same as in CAR 40.237.

40.338. Inspection and Overhaul Organization and Procedures—Same as in CAR 40.238.

40.34. *Aircraft Requirements: Visual-Contact Night Operation*

40.340. If Single-Engine Operation over Land—Applicant shall show aircraft, except float seaplanes, of a model and number necessary for safe operation, and, in addition thereto, that the civil airways over which the proposed operation is to be conducted are deemed by the Secretary to have suitable landing terrain.

40.341. If Single-Engine Operation over Water—Applicant shall show aircraft, except float seaplanes, of a model and number necessary for safe operation. Applicant shall also show that the route to be flown over is such that the aircraft can, at all times, reach land deemed suitable by the Secretary for a safe landing in the event of complete power failure.



40.342. If Multi-Engine Operation over Land—Same as in CAR 40.332.

40.343. If Multi-Engine Operation over Water—Same as in CAR 40.233.

40.344. Number of Aircraft—Same as in CAR 40.334.

40.345. Radio Equipment—Same as in CAR 40.235 and, in addition, applicant shall meet the requirements of CAR 40.253, 40.2530 and 40.2531 if the proposed route is not equipped with airway beacons as provided in CAR 40.210.

40.346. Hangar Facilities—Same as in CAR 40.236.

40.347. Shop Facilities—Same as in CAR 40.237.

40.348. Inspection and Overhaul Organization and Procedures—Same as in CAR 40.238.

40.35. *Aircraft Requirements: Instrument and/or Over the Top Operation*

40.350. If Single-Engine Operation over Land—Same as in CAR 40.340.

40.351. If Single-Engine Operation over Water—Same as in CAR 40.341.

40.352. If Multi-Engine Operation over Land—Same as in CAR 40.332.

40.353. If Multi-Engine Operation over Water—Same as in CAR 40.233.

40.354. Number of Aircraft—Same as in CAR 40.334.

40.355. Radio Equipment—Same as in CAR 40.253, 40.2530, and 40.2531.

40.356. Hangar Facilities—Same as in CAR 40.236.

40.357. Shop Facilities—Same as in CAR 40.237.

40.358. Inspection and Overhaul Organization and Procedures—Same as in CAR 40.238.

40.36. *Airmen Requirements: Visual-Contact Day Operation*

40.360. Number—Same as in CAR 40.260.

40.361. First Pilots—Applicant shall show prior to the issuance of the airline certificate that all persons employed to serve as first pilots for the airline meet the following minimum requirements for qualification as to aircraft and route competency:

40.3610 (a). Each first pilot shall be possessed of at least a valid commercial pilot competency rating with specifications or rating indicating competency to pilot aircraft of each model to be used by him in scheduled operation. Each first pilot shall also be possessed of a valid instrument rating, unless possessed of a valid airline pilot competency rating.

40.3611 (b). Each first pilot, within the 6 months immediately preceding his qualification for the route, shall have made one one-way trip over the proposed route, or part thereof on which he will pilot aircraft for applicant, landing at least once at each terminal, scheduled intermediate stop and intermediate field. If landings cannot be effected at each intermediate field, then the pilot shall make a ground examination, or where impracticable by reason of field conditions, a visual examination from the air at a safe low altitude, of each such field on which no landing was made and shall render a written inspection report thereon promptly to the Secretary; in the case of a visual examination he shall submit to the Secretary a sketch of the field setting forth its condition, obstructions and surrounding terrain. During the preliminary trip, the survey and landing may be accomplished by 2 or more first pilots flying together, provided each lands the aircraft at every terminal, intermediate stop and intermediate field.

40.3612 (c). During the trip required by CAR 40.3611 the flight shall be visual-contact and the visibility shall be not less than 5 miles as observed from the aircraft.

40.3613 (d). Each first pilot to be qualified as to route competency with respect to an alternate route shall have complied with the provisions of CAR 40.3611 and 40.3612 as applied to such alternate route.

40.362. Second Pilots—Applicant shall show that each person employed to serve as a second pilot for the airline is possessed of at least a valid commercial pilot competency rating and before serving as second pilot in any aircraft in scheduled airline service shall have demonstrated, to an air-

line inspector representing the Secretary or to a check pilot or instructor of the airline duly authorized by the Secretary, his ability to take-off and land such aircraft, by making at least 3 satisfactory take-offs and landings in each model of aircraft in which he is to serve.

40.363. Airline Dispatchers—Same as in CAR 40.263.

40.37. *Airmen Requirements: Visual-Contact Night Operation*

40.370. Number—Same as in CAR 40.260.

40.371. First Pilots—Same as in CAR 40.361, except that each first pilot shall have logged at least 1,200 hours of certified solo flying time, and the trip required by CAR 40.3611 shall have been made between the hours of sunset and sunrise.

40.372. Second Pilots—Same as in CAR 40.362 and, in addition, 6 months after the effective date of these regulations, each applicant for or holder of an airline competency certificate will be required to show that each such person is possessed of a valid instrument rating, unless possessed of a valid airline pilot competency rating.

40.373. Airline Dispatchers—Same as in CAR 40.263.

40.38. *Airmen Requirements: Instrument and/or Over the Top Operation*

40.380. Number—Same as in CAR 40.260

40.381. First Pilots—Same as in CAR 40.361, except that each first pilot shall have logged at least 1,200 hours of certified solo flying time, and, in addition, applicant shall show that each first pilot, for whom an instrument authorization is sought, has demonstrated to an airline inspector representing the Secretary or to a check pilot or instructor of the airline duly authorized by the Secretary, his capability with respect to the following:

40.3810 (a). Familiarity with the aircraft, including demonstration of ability to maneuver such aircraft with the load authorized for the route or part thereof; and, if a multi-engine operation, then the foregoing and in addition thereto a demonstration of ability to maneuver such aircraft with said load with any one engine fully throttled, at an altitude equivalent to 1,000 feet above the highest part of the terrain on the proposed instrument course of the route, or part thereof to be flown by the pilot in airline service.

40.3811 (b). Familiarity with the route and with instruments, including demonstration of ability to fly solely by instruments, under actual or simulated conditions, over the route for which qualification is sought.

40.3812 (c). Familiarity with procedures, including demonstration of ability to accomplish a let-down-through by instruments, according to the procedure specified in the appropriate competency letter, at one station at least on the route or part thereof, having radio range facilities that are intended for such use by the pilot. Such demonstration shall be conducted at least at each pilot division terminal in each model of aircraft to be used by the pilot in airline operation. Such demonstrations as to other stations as deemed necessary by the Secretary may be made to an airline inspector representing the Secretary, or to a check pilot or instructor of the airline duly authorized by the Secretary, under simulated conditions by equivalent means approved by the Secretary.

40.382. Second Pilots—Same as in CAR 40.262.

40.383. Airline Dispatchers—Same as in CAR 40.263.

40.39. *Miscellaneous Requirements*

40.390. Weather Minimums—Same as in CAR 40.29, giving consideration to the fact that no passengers are being carried in this operation and providing for the most rapid progress of the art of flying.

40.391. Airline Operation Skill—Same as in CAR 40.291.

40.4. AIRLINE COMPETENCY CERTIFICATE

40.40. *Provision for Issuance:* An airline competency certificate will be issued by the Secretary to an applicant after approval of application made and proofs submitted in connection therewith and if, upon inspection and examination, said applicant is found by the Secretary to meet the general requirements prescribed in CAR 40.1 and the appro-



appropriate particular minimum requirements prescribed in CAR 40.2 or 40.3 and is, therefore, rated as competent to engage in interstate air commerce for the carriage of mail, goods, or passengers, in scheduled operation as specified in the certificate or appended competency letters (provided for in CAR 40.5). Airlines conducting authorized operations shall have until 90 days after the effective date of these regulations to apply for the airline certificate as provided in CAR 40.41. In the interim operations shall be under authority heretofore granted. Also, any airline which heretofore has proven its competency for safe operation shall be entitled presumptively to the airline certificate so applied for.

**40.41. Application:** Application for a scheduled airline certificate shall be made to the Secretary and subscribed under oath by the applicant in the manner outlined in Form AC 40-1.

**40.410. Number of Copies—**Applicant shall submit at least three copies of the application duly completed and executed, and, in the discretion of the Secretary, may be required to submit a greater number not to exceed ten.

**40.411. Application to Amend—**When changes in, or amendments thereto, the original application are desired, the applicant shall submit one copy in addition to the number previously required for the original application, of the amended page or pages, incorporating the change or changes desired in the manner provided in CAR 40.41. These copies shall be submitted to the Secretary through the supervising airline inspector involved and shall not be effective until written approval of the Secretary has been received, except that a 30-day period of provisional approval may be granted by the supervising airline inspector for changes in pilot and dispatcher personnel.

**40.412. Proceeding to Amend—**A proceeding to amend an airline certificate may be instituted by the Secretary when, in his opinion, the airline operator is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding will be addressed to the airline operator with opportunity for a hearing. In the interim, the part of the certificate effected may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency, in which event the findings will be incorporated in a new competency letter.

**40.413. Inspection—**The applicant for an airline certificate shall offer full cooperation with respect to any inspection or examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of such airline certificate.

**40.42. Temporary Permit:** Following application made for an airline certificate, but prior to approval thereof and issuance of the certificate, a temporary permit may be issued by the Secretary in order to enable the applicant to demonstrate ability to meet and comply with the minimum requirements of CAR 40.291 pertaining to airline operation skill. During such period no pay passengers shall be carried.

**40.43. Issuance:** An airline certificate will be issued in an appropriate form in accordance with the provisions of CAR 40.40.

**40.44. Display:** The airline certificate in its current and effective form (or a copy thereof) shall be conspicuously posted in the principal office of the airline where it may be readily seen, and any such certificate shall be presented for inspection upon demand of any authorized officer or employee of the Department of Commerce, or upon the reasonable request of any other person. Facsimile copies of such airline certificate may be posted for display elsewhere.

**40.45. Duration:** An airline certificate will remain effective for an indeterminate time, or until

- (a) the certificate is suspended or revoked, or
- (b) the airline service is discontinued.

**40.46. Non-Transferability:** An airline certificate is not transferable, except with the consent of the Secretary.

**40.47. Suspension or Revocation:** An airline certificate may be suspended or, after hearing, revoked, in whole or in part, for any of the following reasons:

**40.470 (a).** Any false statement by the airline operator in the application for such certificate, or in any information accompanying such application, or in any report required by the Secretary.

**40.471 (b).** Violation on the part of the operator of any of the terms, conditions, specifications, limitations or other provisions of such airline certificate.

**40.472 (c).** Violation on the part of the operator of any of the terms, conditions, specifications, limitations or other provisions of any competency letter appended to such certificate.

**40.473 (d).** Violation on the part of the operator of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

**40.474 (e).** Grossly negligent or willful (and inexcusable) violation by any employee of the operator of any of the terms, conditions, specifications, limitations or other provisions of such airline certificate or any competency letter appended thereto, or of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

**40.475 (f).** Suspension of airline service by the operator, except for reasons beyond control of the operator.

**40.476 (g).** Any unsafe operation of the airline.

**40.477 (h).** Any failure to maintain safety standards requisite to the obtaining of such certificate.

**40.48. Surrender:** Upon notice from the Secretary of the suspension or revocation of an airline certificate, the operator to whom it has been issued shall immediately return such certificate to the Secretary.

**40.49. Re-application:** An operator whose application for an airline certificate has been disapproved may re-apply at any time.

#### 40.5. AIRLINE COMPETENCY LETTERS

**40.50. Provision for Issuance:** To provide necessary minimum safety standards for the operation of a domestic scheduled airline with sufficient flexibility to meet new and constantly changing situations, 6 airline competency letters will be appended to each airline certificate by the Secretary. Such letters will establish the basis for, and set the limitations upon, the competency of the airline operation and will be deemed an integral part of the airline certificate. The 6 competency letters will be as follows:

- 40.500 (a). Service Competency Letter
- 40.501 (b). Route Competency Letter
- 40.502 (c). Aircraft Competency Letter
- 40.503 (d). Maintenance Competency Letter
- 40.504 (e). Airmen Competency Letter
- 40.505 (f). Weather Competency Letter

**40.51. Application:** Application for an airline certificate will constitute, without other formality, application for a competency letter of each kind.

**40.510. Application to Amend—**Application to amend a competency letter of any kind may be made by amending the application for the airline certificate as provided for in CAR 40.411.

**40.511. Proceeding to Amend—**A proceeding to amend a competency letter of any kind may be instituted by the Secretary when, in his opinion, the airline operator is no longer competent in respect of some matter specified in the letter. Notice of such proceeding will be addressed to the airline operator with opportunity for a hearing. In the interim, the part of the letter effected may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency in which event the findings will be incorporated in a new competency letter.

**40.512. Inspection—**Same as in CAR 40.413.

**40.52. Temporary Letter:** Following application made for an airline certificate, but prior to approval and issuance thereof, temporary competency letters may be issued for the purpose of enabling applicant to demonstrate ability to meet the requirements as to service, route, aircraft, maintenance, airmen, and weather competency, for the duration of the temporary permit provided for in CAR 40.42.

**40.53. Issuance:** Upon approval of an application duly made and proofs submitted (including inspection and examina-



tion), a competency letter will be issued in an appropriate form.

40.54. *Display*: No competency letter need be posted for purposes of display, but any such letter shall be presented in its current and effective form for inspection upon demand of any authorized officer or employee of the Department of Commerce, or upon the reasonable request of any other person.

40.55. *Duration*: A competency letter will remain effective for an indeterminate time, or until

- (a) the letter is superseded by a later competency letter of the same kind, or
- (b) the letter is suspended or revoked, or
- (c) the certificate of which it is a part is suspended or revoked, or
- (d) the airline service is discontinued.

40.56. *Non-Transferability*: A competency letter is not transferable, except with the consent of the Secretary.

40.57. *Suspension or Revocation*: A competency letter may be suspended or revoked for any of the reasons specified in CAR 40.47.

40.58. *Surrender*: Upon notice from the Secretary of the suspension or revocation of a competency letter, the operator to whom it has been issued shall immediately return such letter to the Secretary.

40.59. *Re-Application*: An operator, whose application for a competency letter has been disapproved, may re-apply at any time.

#### 50. FLYING SCHOOL RATING

50.0	Provision for Rating
50.1	Minimum Requirements
50.10	Advanced Flying School Rating
50.11	Primary Flying School Rating
50.2	Flying School Certificate
50.20	Provision for Issuance
50.21	Application
50.22	Issuance
50.23	Display
50.24	Duration
50.25	Renewal
50.26	Non-Transferability
50.27	Suspension or Revocation
50.28	Surrender
50.29	Re-Application
50.3	Flying School Regulations
50.30	Inspection
50.31	Curriculum
50.32	Instruction
50.33	Examinations
50.34	Records
50.35	Reports
50.36	Graduation Certificate
50.37	Miscellaneous

#### CHAPTER 50. FLYING SCHOOL RATING

50.0 PROVISION FOR RATING: Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide by regulation for the rating of civilian schools giving instruction in flying, as to the adequacy of the course of instruction, as to the suitability and airworthiness of the equipment, and as to the competency of the instructors, flying school ratings will be as follows:

- (a) Advanced Flying School Rating
- (b) Primary Flying School Rating

50.1. MINIMUM REQUIREMENTS: To be eligible for a flying school competency rating, an applicant shall comply with the following minimum requirements prescribed for the particular rating sought.

50.10. *Advanced Flying School Rating*: To be eligible for an advanced flying school rating, an applicant shall comply with the following minimum requirements.

50.100. *Flying Instructors*—Applicant shall show that each person employed to give, or giving, flight instruction for the school is possessed of both a valid and appropriate pilot certificate and a valid instructor rating.

50.101. *Aircraft for Flight Instruction*—Applicant shall show

50.1010 (a). that each aircraft to be used for purposes of flight instruction is possessed of a valid aircraft certificate.

No. 188—5

50.1011 (b). that at least one certificated aircraft is available for purposes of flying instruction for each 15 students enrolled in flying courses.

50.1012 (c). one or more types of aircraft, normally used for primary dual instruction and deemed satisfactory to the Secretary for such purpose, available for purposes of flying instruction, and 2 or more other types, one of which shall be a cabin aircraft of at least 4-place capacity. All aircraft used for night flying instruction shall be appropriately certificated as provided in CAR 04.

50.102. *Hangar and Shop Facilities*—Applicant shall show hangar space sufficient to adequately house all aircraft used for purposes of flying instruction and shall show shop facilities, equipment and personnel sufficient to maintain such aircraft in an airworthy condition.

50.103. *Landing Area*—Applicant shall show a landing area available for flying instruction which at least complies with the following:

50.1030 (a). *Size and Design*—The landing area shall have (1) at least 1,800 feet of effective landing length in all directions, or (2) at least 3 landing strips not less than 500 feet, permitting landing in at least 6 directions at all times, with at least one landing strip aligned with the general direction of the prevailing wind, the landing strips not to cross or converge at angles of less than 40 degrees, nor any of the landing strips to be less than 1,800 feet in effective landing length, or (3) at least 2 landing strips not less than 500 feet wide, permitting landing in at least 4 directions at all times, with at least one landing strip aligned with the general direction of the prevailing wind, the landing strips not to cross or converge at an angle of less than 80 degrees, nor any of the landing strips to be less than 2,500 feet in effective landing length. The foregoing are sea level dimensions.

50.1031 (b). *Surface*—The landing area shall be suitable for the taking off and landing of aircraft under all ordinary weather conditions, which area shall present a firm, smooth, well drained surface which is free from obstructions.

50.104. *Flying Instruction Curriculum*—Applicant shall show a flying instruction curriculum so organized as to offer the following courses of flight instruction:

50.1040 (a). *Solo Pilot Flight Course*—So arranged as to give each student a minimum of 15 hours total flying time, of which not less than 8 hours shall be dual or check time and not less than 7 hours of solo time in which the student is the sole occupant of the aircraft.

50.1041 (b). *Private Pilot Flight Course*—So arranged as to give each student a minimum of 35 hours total flying time, of which not less than 10 hours, nor more than 15 hours, shall be dual or check time, which may be credited as solo time for the purpose of qualifying for a pilot rating. The course shall also be so arranged as to give each student a minimum of 2 hours solo experience in flying at least one type of aircraft other than that used for primary dual instruction and at least 5 hours of solo cross-country flying, which shall include at least one flight over a course of not less than 50 miles with at least 2 full stop landings at different points on the course.

50.1042 (c). *Limited-Commercial Pilot Course*—Same as in CAR 50.1041, except that the total flying time shall be a minimum of 60 hours of which not less than 15 hours, nor more than 20 hours, shall be dual or check time.

50.1043 (d). *Commercial Pilot Flight Course*—So arranged as to give each student

50.10430 (1). a minimum of 175 hours total flying time, of which not less than 25 hours, nor more than 40 hours, shall be dual or check time, which may be credited as solo time for the purpose of qualifying for a pilot rating.

50.10431 (2). a minimum of 10 hours solo experience in flying each of two distinct types of aircraft other than the aircraft used for primary dual instruction.

50.10432 (3). at least 10 hours of solo flying in at least one type of cabin aircraft, of at least 4-place capacity, which shall be loaded with ballast to the approved gross weight for such aircraft during such flights.



50.10433 (4). At least 10 hours of solo night flying.

50.10434 (5). At least 10 hours of solo cross-country flying, which shall include at least one flight over a course of not less than 100 miles with at least 3 full stop landings at the different points on the course.

50.105. Ground Instructors—Applicant shall show that each person giving, or employed to give ground instruction for the school is possessed of a valid and appropriate ground instructor certificate.

50.106. Aircraft for Ground Instruction—Applicant shall show the following aircraft and aircraft engine demonstration equipment specifically set aside for ground school instruction:

50.1060 (a). One modern type aircraft complete, with engine.

50.1061 (b). 2 additional types of aircraft wings, showing different types of construction and methods of attachment to the fuselage.

50.1062 (c). 3 aircraft engines of different make in current use, 2 of which shall be air-cooled types, and one water-cooled.

NOTE.—The foregoing equipment is not required to be in air-worthy condition, and may have been damaged, provided it has been repaired sufficiently for complete assembly.

50.107. Class Room Facilities—Applicant shall show at least one class room for each 100 persons enrolled, which room shall be capable of seating at least 20 students. All places where instruction is given shall be furnished with suitable and adequate facilities.

50.108. Ground Instruction Curriculum—Applicant shall show a ground instruction curriculum so organized as to offer the following courses of ground instruction:

50.1080 (a). Solo Pilot Ground School Course—So arranged as to give each student at least the following instruction:

50.10800 (1). Civil Air Regulations—5 hours.

50.1081 (b). Private Pilot Ground School Course—Same as in CAR 50.1080, and in addition at least 20 hours in aerial navigation and meteorology as outlined in CAR 20.125, and 5 hours in general service of aircraft.

50.1082 (c). Limited-Commercial Pilot Ground School Course—So arranged as to give each student at least the following instruction:

50.10820 (1). Civil Air Regulations—5 hours.

50.10821 (2). Aircraft engines (including principles of internal-combustion, carburetion, cooling, lubrication, and construction, inspection, maintenance and repair of various types)—15 hours.

50.10822 (3). Aircraft (including history of aviation, theory of flight, nomenclature, aerodynamics, and design, construction, rigging, inspection, maintenance, and repair of various types)—15 hours.

50.10823 (4). Aerial navigation and meteorology—20 hours.

50.10824 (5). Shop practice—5 hours of each of the above required 15 hours on aircraft and on engines may be shop practice on the basis of 3 hours shop practice equivalent to 1 hour of classroom instruction. Shop practice shall be under the direct supervision of a certificated ground instructor. Shop practice as permitted by these regulations is interpreted to mean maintenance and repair instruction. Such instruction, if given, shall be conducted in a specially designated place and on equipment provided for that purpose and shall not be conducted on the actual flying equipment. This, however, shall not be interpreted as prohibiting students from working in the repair shops under the supervision of mechanics holding valid mechanic certificates of competency.

50.10825 (6). Parachutes—1 hour.

50.1083 (d). Commercial Pilot Ground School Course—So arranged as to give each student at least the following instruction:

50.10830 (1). Civil Air Regulations—5 hours.

50.10831 (2). Aircraft Engines—Same as in CAR 50.10821—25 hours.

50.10832 (3). Aircraft—Same as in CAR 50.10822—30 hours.

50.10833 (4). Meteorology—15 hours.

50.10834 (5). Aerial navigation, including the subject of radio and its use—20 hours.

50.10835 (6). Aircraft instruments—10 hours.

50.10836 (7). Parachutes—1 hour.

50.10837 (8). Shop practice—10 hours of the above required 25 hours on engines and 10 hours of the above required 30 hours on aircraft may be shop practice, on the basis of 3 hours shop practice equivalent to 1 hour of classroom instruction. Shop practice shall be under the direct supervision of a certificated ground instructor.

50.11. Primary Flying School Rating: To be eligible for a primary flying school rating, an applicant shall comply with the following minimum requirements:

50.110. Flying Instructors—Same as in CAR 50.100.

50.111. Aircraft for Flight Instruction—Applicant shall show

50.1110 (a). that each aircraft to be used for purposes of flying instruction is possessed of a valid aircraft certificate.

50.1111 (b). that at least one certificated aircraft is available for purposes of flying instruction for each 15 students enrolled in flying courses.

50.1112 (c). one or more types of aircraft, normally used for primary dual instruction and deemed satisfactory to the Secretary for such purpose, available for purposes of flying instruction.

50.112. Hangars and Shop Facilities—Same as in CAR 50.102.

50.113. Landing Area—Same as in CAR 50.103.

50.114. Flying Instruction Curriculum—Same as in CAR 50.104, except that 50.1043 is not required.

50.115. Ground Instructors—Same as in CAR 50.105.

50.116. Aircraft for Ground Instruction—Applicant shall show at least one modern type aircraft complete with aircraft engine. The foregoing equipment need not be in air-worthy condition.

50.117. Class Room Facilities—Same as in CAR 50.107.

50.118. Ground Instruction Curriculum—Same as in CAR 50.104, except that CAR 50.1082 and CAR 50.1083 are not required.

## 50.2. FLYING SCHOOL CERTIFICATE

50.20. Provision for Issuance: A flying school certificate of competency will be issued by the Secretary, upon approval of application made and satisfactory proofs submitted, to a flying school which, upon inspection and examination, is found by the Secretary to meet the appropriate minimum requirements prescribed in CAR 50.1 and is, therefore, rated as competent to give instruction in flying.

50.200. Civilian schools giving instruction in flying and holding valid approved school certificates may operate pursuant to such authority until the expiration thereof or for 6 months after these regulations go into effect, whichever is the shorter period. Thereafter flying school certificates will be issued, upon application, pursuant to these regulations.

50.21. Application: Application for a flying school certificate shall be made to the Secretary, subscribed under oath, upon a form supplied for the purpose, and shall be accompanied by two copies of the flying and ground instruction curricula.

50.210. Application to Amend—When any change in a flying school competency rating is desired, the applicant shall file a written request therefor with the Secretary upon a form supplied for the purpose.

50.211. Proceeding to Amend—A proceeding to amend a flying school competency rating may be instituted by the Secretary when, in his opinion, the flying school is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding shall be addressed to the flying school with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.



50.22. *Issuance*: Upon approval of an application duly made and proofs submitted, including inspection and examination, an appropriate flying school certificate of competency will be issued.

50.220. *Temporary Certificate*—Following application made for a flying school certificate, but prior to approval thereof and issuance of the certificate, a temporary flying school certificate may be issued by the examining Bureau inspector.

50.23. *Display*: The flying school certificate (or a copy thereof) in its currently effective form shall be conspicuously posted in the principal office of the flying school where it may be readily seen, and any such certificate shall be presented for inspection upon demand of any authorized officer or employee of the Department of Commerce, or upon the reasonable request of any other person.

50.24. *Duration*: A flying school certificate, unless sooner suspended or revoked in accordance with the provisions of CAR 50.27, will remain in force for one year after date of issue.

50.25. *Renewal*: The term of a flying school certificate may be renewed upon written application within 45 days prior to expiration and upon a satisfactory showing that the school is in active operation and maintained pursuant to the requirements of these regulations.

50.26. *Non-Transferability*: A flying school certificate is not transferable.

50.27. *Suspension or Revocation*: A flying school certificate may be suspended or revoked, in whole or in part, for any of the following acts or statements on the part of the flying school owner, operator, or employee thereof:

50.270 (a). Any false statement by the flying school operator in the application for the certificate, or in any information accompanying such certificate, or in any report required by the Secretary.

50.271 (b). Violation of any of the terms, conditions, specifications, limitations, or other provisions of the flying school certificate.

50.272 (c). Violation of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

50.273 (d). Suspension of flying school service.

50.274 (e). Any unsafe operation of the flying school.

50.275 (f). Any failure to maintain safety standards requisite to the obtaining of such certificate.

50.276 (g). Any advertising which directly, or impliedly, states that the flying school is certificated as competent to offer any course of instruction in flying or ground school courses for which it does not, in fact, possess a valid flying school competency rating.

50.28. *Surrender*: Upon notice from the Secretary of the suspension or revocation of the flying school certificate, the operator to whom it has been issued shall promptly return such certificate to the Secretary.

50.29. *Re-Application*: An operator whose application for a flying school certificate has been disapproved may re-apply at any time after the expiration of 30 days from the date of such disapproval.

50.3. *FLYING SCHOOL REGULATIONS*: The following rules and regulations will govern the conduct and operation of flying schools:

50.30. *Inspection*: The applicant for any flying school certificate of competency shall offer full cooperation in respect of any inspection and examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of a flying school certificate of competency.

50.31. *Curriculum*

50.310. *Changes*—Any proposed change in the curriculum of a certificated flying school shall be submitted to the Secretary for approval, and no change shall be made prior to such approval.

50.32. *Instruction*

50.320. *Standard of Instruction*—Each certificated flying school shall maintain a standard of ground or flying instruc-

tion, or both, to assure that 9 out of every 10 graduates therefrom who apply for a pilot certificate of competency satisfactorily qualify for such pilot certificate.

50.321. *Spin Instruction*—All certificated flying schools shall give instruction, to each student enrolled for flying instruction, in the recovery from stalls and spins prior to the student's first solo flight.

50.322. *Refresher Courses*—A certificated flying school may give refresher courses in ground or flying subjects, or both, for the purpose of qualifying pilots who already have had the necessary total flying time for the kind of pilot certificate for which they intend to apply.

50.323. *Dual Instruction Restrictions*—All dual instruction given by a certificated flying school shall be in the vicinity of the airport or other instruction area, except that not to exceed 2 hours dual cross-country will be permitted and credited toward the student's total time as a portion of his dual and check time.

50.324. *Limitation on Flying Instruction Hours*—No person shall give, or offer to give, more than 6 hours of dual flying instruction in one day, nor more than 6 days in any one week, to students in a certificated flying school.

50.33. *Examinations*: Upon the completion of each course (meaning each subject taught therein) offered in a certificated flying school, each student taking such course shall be given an examination on the subject matter covered, and all grades attained in such examinations shall be made a part of each student's individual record, and a copy thereof maintained by the school.

50.34. *Records*: Every certificated flying school shall keep an adequate individual record of each student enrolled therein, which record shall include a chronological log of all instruction. The entire record shall be certified to by an authorized official of such school.

50.35. *Reports*: A report and student roster shall be submitted to the Secretary by the owner or operator of each certificated flying school on January first and July first of each calendar year. Such student roster shall list:

- (a) The names of all students enrolled,
- (b) The course or courses for which they are enrolled,
- (c) The names of all students who have been graduated within the period reported on, and
- (d) The names of all students dropped from enrollment, within the period reported on, with the reasons therefor.

50.36. *Graduation Certificate*: Each student who is graduated from a certificated flying school shall be furnished with a graduation certificate by such school, which certificate shall show the flying and/or ground course or courses completed and the grade obtained by such student in each subject of such course, together with a statement of the graduate's totals of both dual and solo flying time.

50.37. *Miscellaneous*:

50.370. *Flying School Regulations to be Posted*—A copy of these flying school regulations (CAR 50) shall be posted conspicuously on the air school bulletin board for the information and guidance of all students enrolled by the school.

50.371. *Credit for Dual Time*—When a student applies for a pilot certificate as a graduate of a certificated flying school, such graduate may be privileged to count a portion of his dual or check time toward the solo-flying experience required for a pilot certificate subject to the restrictions set forth in CAR 50.1040, 50.1041, 50.1042 and 50.1043, provided he applies for such certificate within 30 days after the date of graduation.

#### 52. AIRCRAFT REPAIR STATION RATING

- 52.0 Provision for Rating
- 52.1 Repair Station Certificate
- 52.10 Application
- 52.11 Minimum Requirements
- 52.12 Issuance
- 52.13 Display
- 52.14 Duration



## 52. AIRCRAFT REPAIR STATION RATING—Continued

52.15	Renewal
52.16	Non-Transferability
52.17	Suspension or Revocation
52.18	Surrender
52.19	Re-Application
52.2	Inspection
52.3	Advertising
52.4	Classification Requirements
52.400	General
52.401	Minimum
52.402	Class 1
52.413	Class 12

## CHAPTER 52. AIRCRAFT REPAIR STATION RATING

52.0. **PROVISION FOR RATING:** Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the re-rating of aircraft as to their airworthiness, aircraft repair stations will be rated as to their competence in various classifications of repair activity in accordance with the following provisions.

## 52.1. REPAIR STATION CERTIFICATE

52.10. **Application:** Application for a certificate of competency for an aircraft repair station shall be made to the Secretary on Form AC 52-1 supplied for the purpose.

52.11. **Minimum Requirements:** A repair station, in order to be eligible for certification, shall show the following:

52.110 (a). Facilities and equipment as specified in CAR 52.4 for the classification, or classifications, in which certification is desired.

52.111 (b). Certificated personnel as specified in CAR 18.4.

52.12. **Issuance:** Upon approval of an application duly made and proofs submitted, an aircraft repair station certificate will be issued by the Secretary. The classification, or classifications, of activity in which the repair station is deemed competent will be set forth in a letter of transmittal which accompanies and is a part of the certificate.

52.120. Aircraft repair stations holding valid approved repair station certificates may operate pursuant to such authority for 6 months after these regulations go into effect. Thereafter aircraft repair station certificates will be issued, upon application, pursuant to these regulations.

52.13. **Display:** An aircraft repair station certificate, together with its letter of transmittal as provided for in CAR 52.12, shall be displayed in a prominent place in the repair station.

52.14. **Duration:** An aircraft repair station certificate will remain effective for a period of one year from date of issuance or until

52.140 (a). it is sooner cancelled upon the written request of the owner, or

52.141 (b). it is sooner suspended or revoked, or

52.142 (c). ownership of the repair station is sooner transferred.

52.15. **Renewal:** The term of an aircraft repair station certificate may be renewed for additional periods of one year on application of the holder to the Secretary, provided proof is made satisfactorily to show that the station is in active operation and provided also, that an inspection satisfactorily shows that such station is maintaining the standards required for obtaining such certificate.

52.16. **Non-Transferability:** An aircraft repair station certificate is not transferable.

52.17. **Suspension or Revocation:** An aircraft repair station certificate may be suspended or revoked by reason of any of the following on the part of the holder of such certificate or on the part of any employee of such holder:

52.170 (a). Violation of the Air Commerce Act or any rule or regulation duly issued thereunder.

52.171 (b). Any false statement in an application for a certificate or in any report required to be furnished.

52.172 (c). Any demonstration of incompetency, carelessness or negligence, or the use of inferior or improper material.

52.173 (d). Failure to maintain the facilities, equipment or personnel required by CAR 52.11.

52.174 (e). Use or display of the certificate for fraudulent or improper purpose.

52.175 (f). Refusal to submit to inspection upon proper demand by a representative of the Secretary.

52.176 (g). Any false, misleading or incomplete statements in advertising pertaining to the certificated repair station.

52.177 (h). Performance of any act which is deemed by the Secretary to be contrary to the public safety or interest, or detrimental to the morale of airmen, owners or operators.

52.178 (i). Concealment of or withholding of information as to structural defects, damage or faulty workmanship, from the aircraft owner, or from an authorized representative of the Secretary, or from any State or municipal official charged with the duty of enforcing local laws or regulations involving Federal compliance.

52.18. **Surrender:** Upon notice from the Secretary of the suspension or revocation of an aircraft repair station certificate, the holder thereof to whom same has been issued shall immediately return such certificate to the Secretary.

52.19. **Re-Application:** An applicant for an aircraft repair station certificate which has been denied may apply again at the expiration of 90 days from the date of denial.

52.2. **INSPECTION:** The applicant for, or holder of, an aircraft repair station certificate shall offer full cooperation in respect of any inspection which may be made of such repair station as to facilities, equipment, personnel, techniques, practices or workmanship, upon proper demand by a representative of the Secretary prior to or subsequent to the issuance of any such certificate.

52.3. **ADVERTISING:** A certificated aircraft repair station shall be privileged to advertise its standing as such only with respect to the classification, or classifications, of activity in which it is rated as competent in the letter of transmittal of its certificate. The advertisement shall not fail to incorporate mention of such classification, or classifications.

## 52.4. CLASSIFICATION REQUIREMENTS

52.400. **General:** Every certificated aircraft repair station shall show the following facilities and equipment:

52.4000 (a). A stock room properly set up to insure the proper segregation of materials.

52.4001 (b). A proper system of keeping records of all work.

52.4002 (c). Facilities and equipment for making small drawings.

52.4003 (d). Suitable housing facilities adequately heated and lighted.

52.4004 (e). Adequate certificated personnel qualified to perform or supervise the type of work involved.

52.401. **Minimum:** The minimum requirements as to facilities and equipment for the various classifications of activity are as set forth hereinafter. An aircraft repair station which does not meet the specific item requirements set forth for a particular class of work may be eligible for certification if it shows adequate and suitable substitutes for such items.

52.402. **Class 1—Welded Steel Tube Structure:** A repair station certificated for repair work on welded steel tube structure shall show the following facilities, equipment and supplies in addition to those specified in CAR 52.400. These requirements do not include facilities suitable for the repair of fittings, which shall be in accordance with CAR 52.406.

52.4020 (a). Acetylene welding equipment with proper assortment of torch tips and supplies.

52.4021 (b). Portable buffer.

52.4022 (c). Bench and vise.

52.4023 (d). Power-driven emery wheel.

52.4024 (e). Hand tools, including hack saws, clamps, micrometers suitable for both tubing and flat stock, level and a full set of reamers.

52.4025 (f). Adequate supply of all standard sizes of SAE-1025 and SAE-4130 tubing and sheet available.

52.4026 (g). Supplies and equipment for painting and applying protective coatings to the inside as well as to the outside of tubing.

52.4027 (h). Portable drill.



52.4028 (i). Magnifying glass of at least 4-6 power.

52.4029 (j). Long and short trammel rods with adjustable points suitable for aligning fuselage bays.

52.403. *Class 2—Wooden Structure, Excluding Box and Laminated Spars, and Wood Covered Fuselages, Wings and Control Surfaces:* A repair station certificated for repair work on wooden structure, excluding box and laminated spars, and wood covered fuselages, wings and control surfaces, shall show the following facilities, equipment and supplies in addition to those specified in CAR 52.400:

52.4030 (a). Band and rip saws.

52.4031 (b). Planer or joiner, unless factory spars used or satisfactory local mill available.

52.4032 (c). Hand tools, including clamps.

52.4033 (d). Bench, sawhorses and vise.

52.4034 (e). Supply of wood, including aircraft spruce, mahogany plywood and birch plywood, or satisfactory available source.

52.4035 (f). Supply of casein or highest quality animal glue, including proper facilities for mixing.

52.4036 (g). Supplies and equipment for varnishing and for applying other protective coatings.

52.4037 (h). Soldering equipment and other facilities for fabricating drag wires and drag wire lugs.

52.4038 (i). Supply of necessary small standard parts.

52.4039 (j). Sanding machine.

52.404. *Class 3—Fabric Covering:* Repair stations which are certificated for work on fabric covering shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.4040 (a). Suitable sewing machine.

52.4041 (b). Suitable separate space for doping, including proper ventilation, temperature and humidity control.

52.4042 (c). Hand tools.

52.4043 (d). Supply of fabric and tape suitably stored, or satisfactory available source.

52.4044 (e). Doping brushes.

52.4045 (f). Supply of dope and thinner properly stored.

52.4046 (g). Suitable equipment for spray painting, including compressor and spray gun.

52.405. *Class 4—Wood Covered Fuselages, Wings and Control Surfaces, and Box and Laminated Spars:* A repair station which is certificated for work on wood covered fuselages, wings and control surfaces, and box and laminated spars, shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.4050 (a). An adequate press or a sufficient number of clamps.

52.4051 (b). All the items specified in CAR 52.403 except item (h).

52.406. *Class 5—Steel Fittings:* A repair station which is certificated for work on steel fittings shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.4060 (a). Acetylene welding equipment with proper assortment of torch tips and supplies.

52.4061 (b). Drill press.

52.4062 (c). Portable drilling machine with full set of drills.

52.4063 (d). Work bench and vise.

52.4064 (e). Hand tools, including micrometers, full set of reamers, and tools for laying out fittings.

52.4065 (f). Cutting and forming tools.

52.4066 (g). An adequate supply of SAE-1025 and SAE-4130 sheet steel available.

52.4067 (h). Supplies and equipment for painting and applying protective coatings.

52.4068 (i). A supply of necessary small standard parts.

52.4069 (j). Magnifying glass of at least 4-6 power.

52.407. *Class 6—Aluminum Alloy Structure, Excluding Fittings:* A repair station which is certificated for work on aluminum alloy aircraft structure, excluding fittings, shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.40700 (a). Complete heat-treating equipment for rivets and structural parts, and forming machinery, or satisfactory available source.

52.40701 (b). Rivet dies and air hammer, or the equivalent.

52.40702 (c). Hand tools and clamps.

52.40703 (d). Work bench and vise.

52.40704 (e). Shear for cutting and brake for bending sheet metal.

52.40705 (f). Drill press.

52.40706 (g). Portable drill machine with full set of drills.

52.40707 (h). A suitable supply of aluminum alloy sheets and rivets, or satisfactory available source.

52.40708 (i). A supply of necessary small standard parts.

52.40709 (j). Pressure indicator and control for air rivet hammer.

52.40710 (k). Magnifying glass of at least 4-6 power.

52.408. *Class 7—Aluminum Alloy Fittings:* A repair station which is certificated for work on aluminum alloy fittings shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.4080 (a). Drill press.

52.4081 (b). Portable drilling machine with full set of drills.

52.4082 (c). Work bench and vise.

52.4083 (d). Hand tools including micrometers, full set of reamers, and tools for laying out fittings.

52.4084 (e). Cutting and forming tools.

52.4085 (f). An adequate supply of aluminum alloy sheet and bar stock, or satisfactory available source.

52.4086 (g). Supplies and equipment for painting and for applying protective coatings.

52.4087 (h). Heat-treating equipment, or satisfactory available source.

52.4088 (i). A supply of necessary small standard parts.

52.4089 (j). Magnifying glass of at least 4-6 power.

52.409. *Class 8—Assembly:* Assembly operations shall be understood to include such operations as the installation of fuel or oil tanks and piping; the installation of control system parts; the installation of seats, instruments or other such equipment; and the joining together of two or more major components of the airplane. Repair stations which are certificated for this type of work shall show the following facilities, equipment and supplies in addition to those specified in CAR 52.400:

52.40900 (a). Soldering equipment and supplies.

52.40901 (b). Cable splicing equipment.

52.40902 (c). A supply of aircraft bolts, nuts, clevis pins, cotter pins, cable, cable shackles, thimbles and turnbuckles of all the usual sizes, on hand or satisfactory available source.

52.40903 (d). Level and protractor for rigging.

52.40904 (e). A supply of such hand tools and small parts as are necessary for the purpose intended.

52.40905 (f). Step ladders of sufficient height and a satisfactory tail stand.

52.40906 (g). Suitable equipment for annealing and bending fuel and oil lines.

52.40907 (h). Work bench and vise.

52.40908 (i). Long and short trammel rods.

52.40909 (j). Plumb bob.

52.40910 (k). Tape at least 50 feet long.

52.410. *Class 9—Aluminum Alloy Propeller Blades and/or Steel Hubs:* A repair station which is certificated for work on aluminum alloy propeller blades and/or steel hubs, shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.41000 (a). Balancing stand with knife edge and arbor with suitable mandrels.

52.41001 (b). Propeller surface table and mandrels.

52.41002 (c). Supply of crocus cloth.

52.41003 (d). Riffle files.

52.41004 (e). Drilling machine with full set of drills.

52.41005 (f). A supply of lead wool, and tools suitable for removing and repacking lead wool.

52.41006 (g). A supply of caustic soda and nitric acid.

52.41007 (h). Precision calipers.

52.41008 (i). Protractor for measuring angle of bend, as illustrated in Figure 18 of ACM 18.



52.41009 (j). Suitable tanks in which to etch propeller blades.

52.41010 (k). Suitable press for straightening propeller blades cold.

52.41011 (l). Suitable twisting bars.

52.41012 (m). Magnifying glass of at least 4-6 power.

52.41013 (n). Portable power grinder and buffer with grinding wheel.

52.41014 (o). Manufacturer's dimensioned drawings.

52.41015 (p). Means of placing manufacturer's identification numbers and date of repair on blades so that disassembly is unnecessary at the time of inspection.

52.41016 (q). Metal face plate and protractor for measuring pitch angles.

52.41017 (r). No-go gauge.

52.41018 (s). Spline adapter and stand.

52.41019 (t). Cadmium plating equipment installed or readily available.

52.411 *Class 10—Wooden Propellers:* A repair station which is certificated for work on wooden propellers shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.41100 (a). Balancing stand with knife edge and arbor with suitable mandrels.

52.41101 (b). Propeller bench with vise or arbor for holding propeller while being repaired.

52.41102 (c). Wood files.

52.41103 (d). Complete soldering equipment.

52.41104 (e). Tin snips or metal shears, and shim stock.

52.41105 (f). A supply of high grade animal and casein glue, and facilities for mixing.

52.41106 (g). A supply of high grade quick drying varnish.

52.41107 (h). A supply of tipping material and wood screws, or satisfactory available source.

52.41108 (i). Adequate glue press.

52.41109 (j). Scrapers.

52.41110 (k). Means of placing manufacturer's identification numbers and date of repair on the blades.

52.412. *Class 11—Engines:* A repair station which is certificated for work in connection with engine repairs or overhaul shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.41200 (a). Micrometers, inside and outside.

52.41201 (b). Engine disassembly stand.

52.41202 (c). Complete set of precision measurement tools, including reamers, taps, and valve grinding tools.

52.41203 (d). Propeller hub puller.

52.41204 (e). Wash tank and air pressure cleaning equipment located in a space separated from the final assembly space so that fog from cleaning may not settle on parts ready for assembly.

52.41205 (f). Turning lathe.

52.41206 (g). Sand blast equipment, or readily available source.

52.41207 (h). Block and tackle equipment.

52.41208 (i). A supply of engine service manuals.

52.41209 (j). A supply of standard parts such as nuts, bolts, cotters and gaskets, or satisfactory available source.

52.41210 (k). Heating torch.

52.41211 (l). Level plate.

52.41212 (m). Set of "V" blocks and shim material.

52.41213 (n). Height gauge.

52.41214 (o). Suitable test stand for running-in engines, or available.

52.41215 (p). Supply of engine enamel.

52.41216 (q). Welding torch.

52.41217 (r). Brass and copper lock wire.

52.41218 (s). Record system for showing total hours, hours since last overhaul, tear-down, inspection, parts disposal, parts replacement and log of test run.

52.41219 (t). Assembly stand.

52.41220 (u). Magnifying glass of at least 4-6 power.

52.41221 (v). Equipment suitable for checking alignment of master link, connecting rods and crankshaft.

52.41222 (w). High-pressure spark plug testing machine.

52.41223 (x). Carburetor test stand.

52.41224 (y). Equipment available for testing electrical accessories such as starters and generators.

52.41225 (z). Equipment for testing complete ignition systems, or available.

52.41226 (a'). Portable electric drill press and set of drills.

52.41227 (b'). Power-driven emery wheel and buffer.

52.413 *Class 12—Instruments:* A repair station which is certificated for work in connection with aircraft instrument repair or overhaul shall show the following equipment, facilities and supplies in addition to those specified in CAR 52.400:

52.4130 (a). Airspeed indicator test apparatus as follows:  
 Manometer (inch in tenths scale with a light liquid such as water or kerosene).  
 Pressure pump (sensitive bulb type).  
 Vibrator.  
 Four-way stop-cock with suitable length hose for connections.  
 Stand for supporting indicator.

52.4131 (b). Altimeter test apparatus as follows:  
 Manometer (mercury) mm scale.  
 Vacuum pump.  
 Bell jar.  
 Vacuum pump plate.  
 Ascent and descent rate indicator.  
 Mounting panel.  
 Vibrator with momentary switch.  
 Four-way stop-cock with suitable metering valves and suitable length hose for connections.  
 Pressure altitude chart (millimeters and feet).  
 Vacuum wax.  
 Barometer.

52.4132 (c). Climb indicator test apparatus as follows:  
 Manometer (mercury) mm scale.  
 Vacuum pump.  
 Bell jar.  
 Vacuum pump plate.  
 Ascent and descent rate indicator.  
 Mounting panel.  
 Vibrator with momentary switch.  
 Four-way stop-cock with suitable metering valves and suitable length hose for connections.  
 Pressure altitude chart (millimeters and feet).  
 Vacuum wax.  
 Barometer.  
 Stop watch.

52.4133 (d). Magnetic compass compensating equipment as follows:  
 Compass compensation equipment (for testing either magnetic or induction compasses) should include either (1), or in lieu thereof, (2), (3), (4) and (5) of the following:

52.41330 (1). Magnetic compass equipped with removable compensating magnets.

NOTE.—Any serviceable magnetic compass equipped with removable compensating magnets may be used as a master compass, provided the compensating magnets are removed before being used. In no case will a compass, having compensating magnets permanently installed, be used as a master compass.

52.41331 (2). A circular swinging base having a radius at least equal to the length of the largest airplane to be swung.

NOTE.—The platform should be situated not less than 75 yards from any aircraft and at least 100 yards from any steel structures such as hangars or railroads. Starting with the magnetic north, radii should be laid out every 30°.

52.41332 (3). Special dolly for elevating the tail to approximately flight position.

NOTE.—The dolly must be rigid and strong enough to hold the airplane while the engine is running at half throttle.

52.41333 (4). Pair of single-wheel blocks.

52.41334 (5). Several 50-pound sand bags.

NOTE.—For putting across the rear of the fuselage of nose-heavy airplanes.



52.4134 (e). Tachometer test stands as follows:

Veedor liquid tachometer.  
Gear box for driving tachometer being tested.  
Balance wheel to prevent sudden changes in speed.  
Variable speed electric motor.

#### 61. SCHEDULED AIRLINE RULES (INTERSTATE)

- 61.0 Rating
  - 61.00 Certificate Required
  - 61.01 Violation of Terms
- 61.1 Service
  - 61.10 Service Performed and Changes
  - 61.11 Schedules
- 61.2 Route
  - 61.20 Route Operation and Changes
  - 61.21 Regular Route
  - 61.22 Regular Stops
  - 61.23 Alternate Airports
  - 61.24 Alternate Route
- 61.3 Aircraft
  - 61.30 Aircraft Operation and Changes
  - 61.31 Single-Engine Aircraft
  - 61.32 Multi-Engine Aircraft
  - 61.33 Instruments
  - 61.34 Equipment
  - 61.35 Maintenance
- 61.4 Maintenance Manual
  - 61.40 Necessity For
  - 61.41 Contents
  - 61.42 Form
  - 61.43 Delivery of Copies
  - 61.44 Record of Copies
  - 61.45 Changes
  - 61.46 Retirement of Parts Program
- 61.5 Airmen
  - 61.50 Airmen Utilization and Changes
  - 61.51 First Pilot
  - 61.52 Second Pilot
  - 61.53 Pilot Technique Maintenance
  - 61.54 Radio Operator
  - 61.55 Dispatchers
- 61.6 Weather
  - 61.60 Reports
- 61.7 Flight Operations
  - 61.70 Prior to Clearance
  - 61.71 Dispatching Rules (For Clearance)
  - 61.72 Flight Preparation and Take-Off Rules
  - 61.73 Flight Course and Enroute Rules
  - 61.74 Flight Altitude Rules
  - 61.75 Instrument Approach Rules
  - 61.76 Landing Rules
  - 61.77 Flight Interruption Rules
  - 61.78 General Pilot Rules
  - 61.79 Miscellaneous Rules
- 61.8 Operations Manual
  - 61.80 Necessity for
  - 61.81 Contents
  - 61.82 Form
  - 61.83 Delivery of Copies
  - 61.84 Record of Copies
  - 61.85 Changes
- 61.9 Reports
  - 61.90 General
  - 61.91 Monthly Report
  - 61.92 Mechanical Interruption
  - 61.93 Weather Interruption
  - 61.94 Daily Report
  - 61.95 Irregularity Report

#### CHAPTER 61. SCHEDULED AIRLINE RULES (INTERSTATE)

##### 61.0. CERTIFICATION

61.00. *Certificate Required*: No scheduled airline shall be operated in interstate air commerce for the carriage of mail, goods, or persons, or any combination thereof, unless

(a) possessed of a valid airline certificate (or temporary permit) issued by the Secretary of Commerce, and

(b) possessed of valid competency letters (or temporary letters) relating to service, route, aircraft, maintenance, airmen, and weather, issued by the Secretary of Commerce and appended to such certificate and deemed a part thereof.

61.01. *Violation of Terms*: No scheduled airline shall be operated in interstate air commerce for the carriage of mail, goods, or persons, or any combination thereof, in violation of any of the terms, conditions, specifications, limitations, or other provisions

(a) contained in its airline certificate or temporary permit, or

(b) contained in any current competency letter or temporary letter relating to service, route, aircraft, maintenance, airmen, or weather.

##### 61.1. SERVICE

61.10. *Service Performed and Changes*: No scheduled airline shall perform or render any service, as related to the carriage of mail, goods, or persons, or to day or night operation, until rated competent to render such service in an appropriate competency letter issued by the Secretary. When an airline operator desires to effect a change in the kind of service offered with respect to the above, application for a competency rating therefor shall be made to the Secretary in accordance with CAR 40.510.

##### 61.11. Schedules

61.110. *Operations Schedules*—Shall be set up with due regard to sufficient time for the adequate servicing of fuel and oil at intermediate stops, to prevailing winds, and of a basis of cruising speed of the aircraft at not to exceed the specified cruising power output of the engines as operated in the aircraft. All airline aircraft when being tested for ratings will be checked to determine cruising speeds that are to be approved. Block-to-block time shall be used in establishing time from stop to stop.

##### 61.2. ROUTE

61.20. *Route Operation and Changes*: No scheduled airline shall operate over any route or part thereof until rated competent to operate thereover in an appropriate competency letter, issued by the Secretary. When an airline operator desires to effect a change in the route flown over, application for a competency rating therefor shall be made to the Secretary in accordance with CAR 40.510.

61.21. *Regular Route*: The conduct of operations by a scheduled airline shall at all times be in strict accordance with the terms of its route competency letter.

61.22. *Regular Stops*: Regular terminals and intermediate stops shall be used only as specified in the route competency letter.

61.23. *Alternate Airports*: Regular terminals, intermediate stops or other adequate airports, may be used as alternates when used for the purpose of complying with clearance requirements, provided such alternates are listed as such in the route competency letter.

61.24. *Alternate Route*: No scheduled airline shall operate over any alternate route until rated competent to operate thereover in an appropriate competency letter issued by the Secretary, and the conduct of operations by such airline shall at all times be in strict accordance with the terms of its route competency letter.

##### 61.3. AIRCRAFT

61.30. *Aircraft Operation and Changes*: No scheduled airline shall operate any aircraft until rated competent with respect thereto in an appropriate competency letter issued by the Secretary. When an airline operator desires to effect a change in the model aircraft utilized, application for a competency rating therefor shall be made to the Secretary in accordance with CAR 40.510.

##### 61.31. Single-Engine Aircraft

61.310. *Day Operation over Land*—No single-engine float seaplane shall be operated over land unless such aircraft can, at all times, reach open water suitable for a landing in the event of complete power failure.

61.311. *Night Operation over Land*—No single-engine aircraft shall be operated at night with passengers.

61.312. *Day Operation over Water*—The following rules shall govern the operation of single-engine aircraft in day operation over water:

61.3120 (a). No single-engine land aircraft shall be operated over water unless such aircraft can at all times reach land suitable for a landing in the event of a complete power failure.

61.3121 (b). No single-engine water aircraft may be operated over water unless a landing may be effected at all times



within a distance of eight miles from shore, in the event of a complete power failure.

61.3122 (c). No single-engine water aircraft shall be operated over water, except during such time and seasons as permit the use of such water for landing without any hazard from floating ice or freezing water spray.

61.313. Night Operation over Water—No single-engine aircraft shall be operated at night with passengers.

#### 61.32. Multi-Engine Aircraft

61.320. Day Operation over Land—No multi-engine float seaplane shall be operated over land unless such aircraft can, at all times, reach open water suitable for a landing in the event of a complete power failure.

61.321. Night Operation over Land—No multi-engine float seaplane shall be operated at night over land.

61.322. Day Operation over Water—The following rules will govern the operation of multi-engine aircraft in day operation over water:

61.3220 (a). No multi-engine aircraft shall be operated over water, beyond gliding distance without the aid of power, unless completely equipped for over-water flying, as provided in CAR 40.233.

61.3221 (b). No multi-engine aircraft shall be operated over water unless such aircraft can, at all times, maintain an altitude of at least 1,000 feet above the water, with any one engine completely out of commission and with the authorized load for the route or part thereof.

61.3222 (c). No multi-engine seaplane shall be operated over water except during such time and seasons as permit the use of such water for landing without any hazard from floating ice or freezing water spray.

61.3223 (d). When one engine fails in a twin-engine aircraft operating over water, the aircraft shall be headed toward, and thereafter continuously flown toward, the shore nearest in terms of time.

61.323. Night Operation over Water—The following rules will govern the operation of multi-engine aircraft in night operation over water:

61.3230 (a). Multi-engine water aircraft, except float seaplanes, may be operated over water at night for the carriage of mail and goods.

61.3231 (b). Same as CAR 61.3221.

61.3232 (c). No multi-engine aircraft shall be operated over water at night beyond gliding distance from shore without the aid of power, unless completely equipped for over-water flying, as provided in CAR 40.233.

61.3233 (d). Same as CAR 61.3223.

61.33. Instruments: No scheduled airline shall operate any aircraft in scheduled airline service unless such aircraft is possessed of all instruments required by the provisions of CAR 04.52 and 04.53. Flight instruments shall be properly functioning at the time of clearance and take-off of the aircraft.

61.34. Equipment: No scheduled airline shall operate any aircraft in scheduled airline service unless such aircraft is possessed of all equipment required by the provisions of CAR 04.52 and 04.53. Such equipment shall, at the time of clearance and take-off of the aircraft, be in a serviceable condition and ready for use.

#### 61.35. Maintenance

61.3500. General—Each aircraft operated by a scheduled airline shall be maintained in a continuous condition of airworthiness, in accordance with accepted standards and practices, and the terms of the aircraft and maintenance competency letters.

61.3501. Organization—A maintenance organization shall be set up by the airline and it shall be responsible for the continuous condition of the airworthiness of all aircraft, engines, propellers, accessories and instruments, for the proper maintenance of adequate facilities, for the adequacy and competence of maintenance personnel and for the preparation and dissemination of such maintenance reports as are required by the Secretary.

61.3502. Supervision—All phases of maintenance duties shall be adequately supervised by qualified mechanics, mechanics in charge, crew chiefs, or foremen.

61.3503. Inspection—An adequate inspection organization shall be set up by the airline and it shall be responsible for determining that all maintenance work conforms to Department of Commerce requirements as to workmanship, methods employed, and materials used, as provided in CAR 61.35. Each inspector shall hold valid mechanic's certificate for the type of inspection involved.

61.3504. Workmanship—Workmanship shall be at least equivalent to that generally accepted as conforming to good practice as related to the airworthiness of the aircraft or auxiliary equipment.

61.3505. Methods—Methods employed shall conform to those generally accepted as good practice. Insofar as they apply, the methods provided for in CAR 18 shall be utilized.

61.3506. Materials—Materials used shall conform, when possible, to Army, Navy or CAR 18 specifications. In no case shall materials be used of physical properties less than those of the material used by the manufacturer of the equipment or component in question insofar as the airworthiness of such equipment or component is affected.

61.3507. Mechanics—An adequate staff of qualified mechanics and experienced artisans shall be employed by the airline operator and kept available for the performance of functions of maintenance and other duties which are reasonable and necessary to the safe and orderly operation involved. Each such mechanic and artisan shall be relieved of all airline duties for a period of at least 24 consecutive hours during each week of duty or equivalent thereof.

61.3508. Training Program—A training program shall be maintained so that maintenance personnel may at all times be familiar with the duties required, with particular reference to the introduction into airline service of new or unfamiliar equipment.

61.3509. Distribution of Personnel—Sufficient maintenance personnel shall be stationed or provided for along the airline route and at such scheduled stops as may be deemed necessary by the Secretary to provide proper service to flight equipment and auxiliaries thereto.

61.3510. Shops and Facilities—At least one general overhaul and maintenance shop containing adequate working space shall be provided for by the operator. Such shop shall be properly lighted, ventilated and heated.

61.3511. Stock—An adequate quantity of spare parts and supplies shall be kept on hand or readily available at all times.

61.3512. Adequate Facilities—Adequate facilities for the proper servicing, maintenance and repair of airline aircraft and auxiliary equipment shall be available at all points along the airline deemed necessary or advisable by the Secretary.

61.3513. Inflammable Material—Including dope, gasoline, etc., shall be kept remote from that portion of shops where sparks or open flames present fire hazards, by their proximity.

61.3514. Refueling Requirements—The following rules will govern the operations incident to the refueling of airline aircraft:

61.35140 (a). Water elimination facilities shall be provided at all refueling points.

61.35141 (b). A daily check for the presence of water in fuel and storage and dispensing tanks shall be made and a record of such water checks shall be kept.

61.35142 (c). Where refueling is accomplished during conditions of rain or snow, precautions shall be taken to prevent the entrance of moisture into the fuel tanks of the aircraft.

61.35143 (d). During refueling the aircraft and the fuel dispensing apparatus shall both be grounded to a point or to points of zero electrical potential.

61.35144 (e). When refueling is accomplished at night, adequate lights shall be provided to insure proper servicing.

61.35145 (f). No smoking and no fires or flames shall be permitted in the immediate vicinity of an aircraft while refueling is being accomplished.



61.35146 (g). When practicable, the aircraft electrical switches shall be not turned on or off while refueling is being accomplished.

61.35147 (h). When passengers are permitted to remain in the cabin while refueling is being accomplished, a responsible cabin attendant shall remain in the cabin at or near the cabin door.

61.3515. Alteration and Repairs—Airline aircraft, including training aircraft, aircraft engines, propellers and approved components thereof, shall be altered or repaired only in conformity to the procedures provided in CAR 18. Reports of such alterations or repairs shall be submitted promptly to the Secretary through the airline maintenance inspector having supervision of the operation involved.

61.3516. *Records*: Current records shall be kept of the total time of service, the time since last overhaul, and time since last inspection, on all aircraft, engines, propellers and where practicable on instruments and accessories.

#### 61.4. MAINTENANCE MANUAL

61.40. *Necessity For*: In order to properly maintain flight equipment, each operator of a scheduled airline shall prepare and maintain a maintenance manual for the use and guidance of the maintenance personnel.

61.41. *Contents*: Each maintenance manual shall contain instructions for each operation covering the overhaul, check, inspection and servicing of flight equipment and other equipment auxiliary thereto, and shall also contain a copy of the current maintenance competency letter. The duties and responsibilities of each mechanic in charge, crew chief, foreman and inspector shall be clearly prescribed.

61.42. *Form*: The maintenance manual shall be loose-leaf in form, and each page therein shall be numbered and dated to show the currency of all material contained therein. All copies of such manual shall at all times be kept up to date.

61.43. *Delivery of Copies*: A copy of the maintenance manual shall be furnished to at least the following persons:

61.430 (a). the Secretary of Commerce,

61.431 (b). the Chief, Airline Inspection Section, Bureau of Air Commerce,

61.432 (c). each airline maintenance inspector of the Bureau of Air Commerce in charge of inspection of any part of the airline,

61.433 (d). each chief of maintenance of the airline,

61.434 (e). each chief inspector of the airline, and

61.435 (f). each mechanic of the airline in charge of all stations where servicing, inspection, checks or overhauls is or are done.

61.44. *Record of Copies*: Each airline operator shall keep a complete record of all persons to whom copies of its maintenance manual have been supplied.

61.45. *Changes*: The following rules will govern changes made in the maintenance manual:

61.450 (a). Any change issuing from the Secretary pertaining to the maintenance manual shall be promptly incorporated in the maintenance manual and copy thereof sent, in the form of a new page of such manual, to each person required to hold a copy of the manual. Each amended page of the manual shall be properly dated.

61.451 (b). Upon receipt of such amended page or pages the recipient shall insert the current information in the manual.

61.452 (c). No change shall be made in any of the overhaul, check or inspection periods contained in the manual without the approval in writing of the Secretary.

61.453 (d). Any data not issuing from the Secretary may be changed by the operator, without the approval of the Secretary, provided such change is not inconsistent with any Federal regulation or competency letter or safe maintenance practice. Notice of such change shall be promptly given in accordance with CAR 61.450.

61.46. *Retirement of Parts Program*: A retirement of parts program shall be set up by the operator based upon the experience of the operator and the best information available including recommendations from the original manufacturer of the equipment.

No. 188—6

#### 61.5. AIRMEN

61.50. *Airmen Utilization and Changes*: No scheduled airline shall utilize any pilot or dispatcher until such airman has been rated competent for the particular airline operation by the Secretary. When an airline operator desires to effect a change in the airmen listed in the airmen competency letter, application for a competency rating therefor shall be made to the Secretary in accordance with CAR 40.510.

##### 61.51. First Pilot

61.510. Aircraft Commander—The first pilot shall be in command of the aircraft at all times during flight, and shall be responsible for the safety of persons and goods carried, and for the conduct and safety of the members of the crew.

61.511. Aircraft Competency—The first pilot shall meet the appropriate minimum requirements of CAR 40 and be listed in the airmen competency letter as approved for service to be performed.

61.512. Instrument Competency—The first pilot, in addition to meeting the minimum requirements for an instrument rating provided for in CAR 20.21 and the appropriate provisions of CAR 21, as the case may be, must prove satisfactorily to the operator's check pilot, at least every six months after entry into service in accordance with the training program required by CAR 61.53, his ability to pilot and navigate by instruments an aircraft of a make and model to be flown by him in the airline service. Additional checks may be required by the Secretary in his discretion.

61.513. Route Competency—The first pilot shall meet the appropriate minimum requirements of CAR 40 and be listed in the airmen competency letter as approved for the route, or part thereof, specified therein. No pilot shall be scheduled over an alternate route unless he has met the requirements of CAR 61.5141 regarding qualification over such route.

61.514. Route Competency Expiration—The following rules will govern conditions of route competency expiration, as related to first pilots:

61.5140 (a). Regular Route—After 6 consecutive months' absence from flight duty over a regular route, or part thereof, a first pilot will no longer be deemed competent for the carriage of persons in airline service over such route or part thereof.

61.5141 (b). Alternate Route—After 12 consecutive months' absence from flight duty over an alternate route, a first pilot will no longer be deemed competent for the carriage of persons in airline service over such route.

61.515. Route Competency Renewal—The following rules will govern conditions of route competency renewal, as related to first pilots:

61.5150 (a). A first pilot, who has been absent from flight duty over a regular route, or part thereof, for a period of less than 12 consecutive months and whose route competency has expired in accordance with the provisions of CAR 61.5140, will be deemed competent for such route, or part thereof, upon completion of one round trip flight over the route, or part thereof, as pilot (without passengers) or as second pilot (with or without passengers), and upon notice to the Secretary of such flight with weather conditions as outlined in CAR 40.2613.

61.5151 (b). A first pilot, who has been absent from flight duty over an alternate route for a period of more than 12 consecutive months and whose route competency has expired in accordance with the provisions of CAR 61.5141, will be deemed competent for such alternate route upon compliance with the requirements of CAR 40.2611, CAR 40.2612 and CAR 40.2613, as to such alternate route.

61.516. Logging Flight Time—A first pilot shall log the total actual flight time elapsing during his command of the aircraft.

61.517. Logging Instrument Flight Time—Instrument time may be logged as such only when the aircraft is flown solely by reference to instruments either under actual or simulated conditions. (Over-the-top flying shall not be logged as instrument time.)



61.518. Flight Time Limitations—The following rules will provide the limitations as to the first pilot flight time:

61.5180 (a). A first pilot may be scheduled to fly 8 hours or less during any 24 consecutive hours, without a rest period during such 8 hours. If such pilot be scheduled to fly in excess of 8 hours during any 24 consecutive hours, he shall be given an intervening rest period at or before the termination of 8 scheduled hours of flight duty. Such rest period shall equal at least twice the number of hours flown since the last preceding rest period and in no case shall such rest period be less than 8 hours. During such rest period, the pilot shall be relieved of all duties with the airline.

61.5181 (b). When a first pilot has flown in scheduled airline service in excess of 8 hours during any 24 consecutive hours, he shall receive 24 hours of rest before being assigned any duty with the airline.

61.5182 (c). A first pilot shall not fly in excess of 30 hours during any 7 consecutive days. Relief from all duty for not less than 24 consecutive hours shall be provided for and given to such pilot at least once during any 7 consecutive days.

61.5183 (d). A first pilot shall not fly in scheduled airline service as a member of the crew more than 100 hours in any one month.

61.5184 (e). A first pilot shall not fly in airline service more than 1,000 hours in any calendar year.

61.5185 (f). All first pilot flight time limitations of these regulations are applicable even though such pilot may be used as a second pilot except when first pilot is qualifying on a regular route or alternate route on which he is not qualified.

61.5186 (g). A first pilot shall not do other commercial flying while employed by an airline operator when such flying will exceed any flight time limitations specified herein.

61.519. Physical Examination—A first pilot shall complete a satisfactory physical examination given by a medical examiner designated by the Secretary in accordance with the requirements of CAR 20.3504 and 21.252, as the case may be. Additional examinations may be required by the Secretary at his discretion.

#### 61.52. Second Pilot

61.520. When Required—A second pilot will be required in the following cases when passengers are carried:

61.5200 (a). When the aircraft used is of a design incorporating multi-engine features, combined with retractable landing gear or wing flaps or of a single-engine design incorporating both retractable landing gear and wing flaps, or

61.5201 (b). when the first pilot is required to fly 5 or more hours during any 24 consecutive hours without an intervening rest period equal to at least 2 hours for each hour flown since the last preceding rest period. Such rest period when required shall not be less than 8 hours, or

61.5202 (c). when the operation authorized permits instrument flying, or

61.5203 (d). when, in the opinion of the Secretary, the usual and customary duties of a first pilot in the navigation and conduct of a flight would be unduly interfered with through the necessity of performing other duties.

61.521. Aircraft Competency—A second pilot shall meet the minimum requirements prescribed in CAR 40.262.

61.522. Instrument Competency—At least once each 6 months after entry into service as a second pilot, each second pilot shall have his log-book certified to the effect that he is capable of flying by instruments and has demonstrated such fact to a first pilot, check pilot, or to the chief pilot of the airline, which person shall so certify.

61.523. Logging Flight Time—A second pilot may log 50% of the total actual flight time or he may log the full flight time during which he was the sole manipulator of the controls, provided that if such time be in excess of 50% of the total flight time, the time so flown by the second pilot shall be certified by the first pilot.

61.524. Flight Time Limitations—A second pilot shall not fly as a member of the crew in scheduled airline service, more than 100 hours in any month.

#### 61.53. Pilot Technique Maintenance

61.530. Responsibility of Operator—In order to maintain a high standard of pilot technique, the airline operator shall be responsible for proper and periodic instruction, in their respective duties, of all first and second pilots employed by such operator. The instruction so given to first pilots shall at least include single-engine operation and approach for landing with maximum load authorized for the route or portion thereof, in each type of aircraft to be used by the pilot in scheduled airline service, and instrument approach procedures.

61.531. Transition Training—If a first pilot has not flown a particular make and model of aircraft, within the previous 90 days, he shall before being scheduled in such equipment receive flight training on such aircraft, including:

61.5310 (a). 5 take-offs and landings, with one-half to three-quarters of the useful load aboard.

61.5311 (b). One landing of the 5 provided for in CAR 61.5310, with one engine fully throttled approach, effected during the day, and where night operation is authorized one landing of the 5 provided for in CAR 61.5310, with one engine fully throttled approach, effected at night.

61.532. Persons Carried During Transition Training—During such pilot transition training, no persons other than airline personnel on airline business may be carried.

61.533. Pilot Certification for Equipment—When such tests are not conducted by a Department of Commerce airline inspector, an authorized check pilot shall certify to the pilot's capabilities on the equipment involved.

61.534. Check Pilots—Each airline operator shall provide a sufficient number of check pilots to insure that each pilot constantly meets and complies with the minimum pilot requirements pertaining to scheduled airline service. No check pilot so provided by the operator shall check any first pilots for the airline until such check pilot has been approved therefor by the Secretary. No check of pilot capabilities made in behalf of the airline operator abrogates the authority of the Secretary to make whatever pilot checks are deemed by him to be necessary in the interests of safe airline operation.

61.535. Training Program—A pilot training and instruction program satisfactory to the Secretary shall be maintained by the airline. The operator shall submit it to the Secretary within 60 days of certification of the airline.

#### 61.54. Radio Operator

61.540. Pilot as Operator—The first or second pilot may serve in the capacity of a radio operator, subject to the rules of the Federal Communications Commission in respect to the grade of operator's license required.

#### 61.55. Dispatchers

61.550. Number Required—The airline operator shall provide an adequate number of certificated airline dispatchers, necessary for the type of operation involved, for the purpose of dispatching airline aircraft.

61.551. Location—One or more airline dispatchers shall be located at such terminal or intermediate points on the route as may be deemed by the Secretary to be necessary for the operation involved.

61.552. Dispatcher Competency Certificate—Each dispatcher used by the airline for the purpose of dispatching airline aircraft shall be possessed of a valid dispatcher's certificate, in accordance with the provisions of CAR 27.

61.553. Route Competency—The following rules shall govern a dispatcher's route competency:

61.55300 (a). He shall have made at least one round trip over the route, or part thereof, on which he is to serve during the previous 90 days prior to dispatching any airplane over such route or part thereof.

61.55301 (b). He shall observe and be familiar with the prevailing weather phenomena peculiar to the route, or part thereof, for which qualification is sought.

61.55302 (c). He shall be familiar with the airline operation over the route, or part thereof, for which qualification is sought.

61.55303 (d). He shall be familiar with the contents of the airline operations manual.



61.55304 (e). He shall be familiar with the airmen and weather competency letters over the route or part thereof for which qualification is sought.

61.55305 (f). He shall be familiar with the general and special rules of the airline concerning dispatch of aircraft in scheduled operations.

61.55306 (g). He shall be familiar with the aircraft used by the airline.

61.55307 (h). He shall be familiar with the provisions of the aircraft certificates and with the loading charts for the equipment used.

61.55308 (i). He shall be familiar with the maximum authorized loads, with respect to the route or part thereof, for the aircraft to be used.

61.55309 (j). He shall be familiar with the fuel and oil consumption of the aircraft, with respect to the airline operating conditions.

61.55310 (k). He shall be familiar with the available charts used to compute the air speed of the aircraft and the fuel consumption, at various altitudes and power outputs of the aircraft engines.

61.55311 (l). He shall be familiar with the local United States Weather Bureau and Bureau of Air Commerce personnel.

61.55312 (m). He shall be familiar with the radio facilities in the aircraft used.

61.55313 (n). He shall be familiar with the peculiarities and limitations of each radio range and radio marker station over the route, or part thereof, for which route competency is sought.

61.55314 (o). He shall be familiar with the effect of weather conditions upon the radio reception by the aircraft to be used.

61.55315 (p). He shall be familiar with the time-tables which ordinarily apply to the airline operation.

61.55316 (q). He shall be familiar with any airway facility, additional to those mentioned in CAR 61.55313 enroute, to, or located at, alternate airports approved as such, for the route or part thereof, in the route and weather competency letter.

61.554. Route Competency Maintenance—Each dispatcher, listed in the airline airmen competency letter shall make at least one round trip over the route, or part thereof, on which he dispatches airline aircraft in scheduled operations, at least once each 6 months.

61.555. A dispatcher shall not dispatch visual-contact, instrument and/or over-the-top flights, either day or night, below the respective minimums specified for such flights in the weather competency letter, except as provided in CAR 61.71094.

61.556. Dispatcher Route Competency Expiration—After 24 consecutive months' absence from dispatching duty over a route or part thereof, a dispatcher will no longer be deemed competent to dispatch aircraft in scheduled operations over such route or part thereof.

61.557. Dispatcher Time Limitations—The following rules will govern the hours of duty for authorized dispatchers:

61.5570 (a). Maximum Consecutive Hours of Duty—No dispatcher shall be on duty as such for a period of more than 10 consecutive hours.

61.5571 (b). Maximum Hours of Duty in 24 Consecutive Hours—If a dispatcher is scheduled to be on duty as such for more than 10 hours in a period of 24 consecutive hours, he shall be given a rest period of not less than 8 hours, at or before the termination of 10 hours of dispatcher duty except in emergencies due to illness or unavoidable absence of a dispatcher due to weather during a qualification trip or other circumstances beyond the control of the operator.

61.5572 (c). Dispatcher's Time Off—Relief from all duty with the airline for not less than 24 hours shall be provided for and given each dispatcher at least once during any consecutive 7 days, or equivalent thereto within one calendar month.

#### 61.6. WEATHER

61.60. Reports: The following rules shall govern the use of weather reports by scheduled airline operators:

61.600 (a). No weather report shall be used to control flight movements unless prepared from observations made and released by the United States Weather Bureau, or by a source approved by such Bureau including pilots' flight observation reports.

61.601 (b). The weather reports used shall be the latest reports available.

61.602 (c). The last airway weather report entered upon the clearance form or attached thereto shall be not more than one hour and 15 minutes old at the time the aircraft departs on a scheduled flight, except that off-course weather reports or on-call weather reports may be entered thereupon or attached thereto if the last such report is not more than 2 hours old.

61.603 (d). Barometric pressures, corrected to sea level readings, shall be utilized exclusively.

61.604 (e). All ceiling heights, reported by pilots in flight either by radio or by entry on forms, shall be with reference to altitude above sea level.

61.605 (f). Forecasts made by the Weather Bureau or company meteorologists, or both, may be used.

#### 61.7 FLIGHT OPERATIONS

##### 61.70. Prior to Clearance

61.700. Aircraft to be Airworthy—No scheduled airline shall operate any aircraft unless, at the time of use, the aircraft is in an airworthy condition, conforms with the terms of its current aircraft certificate and is loaded in conformity with the current loading schedule which is a part of such certificate.

61.701. Adequately Serviced—Before departure on any flight, the airline aircraft shall be adequately serviced. The first pilot shall be responsible for the proper servicing of the aircraft, although he may delegate the actual work of supervision to a second pilot or other airman.

61.702. Adequate Fuel Supply—The following rules shall govern the minimum fuel supply to be carried by all airline aircraft:

61.7020 (a). Visual-Contact Operation (Day or Night)—No airline aircraft shall be dispatched or shall take off without fuel and oil sufficient, considering the wind and other weather conditions to be encountered during the course of the flight, at least

(1) to complete such flight to the point cleared to, and thereafter.

(2) to fly for a period of 45 minutes at normal cruising consumption for the flight.

61.7021 (b). Instrument or Over-the-Top Operation (Day or Night)—No airline aircraft shall be dispatched or shall take off without fuel and oil sufficient, considering the wind and other weather conditions to be encountered during the course of the flight, at least

(1) to complete such flight to the point cleared to, and thereafter

(2) to fly to and land at the alternate airport designated in the clearance and most distant from the point cleared to, and thereafter

(3) to fly for a period of 45 minutes at normal cruising consumption for the flight.

61.703. Radio Ground Check—Immediately preceding departure from originating station it shall be determined that both day and night frequencies of the two-way radio, as well as all additional frequencies whose use are contemplated during the flight, are working satisfactorily. The method of determining this shall be by radio contact on each frequency with at least one ground station.

61.704. Passengers Aboard During Refueling—Passengers may be permitted to remain in the cabin during refueling, provided:

61.7040 (a). There is no smoking in the aircraft, and

61.7041 (b). there is no smoking on the ground in the vicinity of the aircraft, and



61.7042 (c). an employee of the operator is stationed in the entrance to the passenger cabin and remains there alert for any emergency until refueling is completed.

61.705. Notice of Other Aircraft in Flight on Route—Prior to clearance, it shall be the responsibility of the dispatcher to ascertain from the best information available what other aircraft flights are in progress over the route to be flown, the results of which shall be made known to the pilot. After departure of the scheduled flight the dispatcher will continue to advise his flight or flights the progress of all other known aircraft in flight on the course, crossing courses, converging courses, etc.

61.71. *Dispatching Rules (For Clearance)*

61.7100. Necessity for Dispatching Authorization—No scheduled airline flight shall be started except on the authority of an airline dispatcher whose name appears in the airmen competency letter as qualified for the route, or part thereof, on which the flight takes off.

61.7101. Dispatcher Reporting for Duty—No dispatcher shall clear a flight of airline aircraft unless he has been on duty, at the station from which such clearance is effected, for a period sufficient to become familiar with existing conditions. He shall continue on duty until the aircraft has landed in completion of a trip, or until the dispatching supervision has been taken over by an adjacent airline dispatcher or by another dispatcher who has relieved him after such relief dispatcher has been on duty for a period sufficient to become familiar with existing conditions.

61.7102. Clearance Form: Approval—The clearance form used shall be approved by the Secretary. (Note: A sample form may be obtained from the Secretary which contains substantially the material that would be acceptable.)

61.7103. Clearance Preparation and Execution—A clearance form shall be properly prepared and executed for each flight between designated clearance points, and shall be signed by the first pilot and by an authorized dispatcher or by duly authorized station personnel of the operator after receiving current authority from the authorized dispatcher on duty only when both the first pilot and the dispatcher believe the flight may be made with safety. The original copy shall be given to the first pilot and a duplicate copy shall be kept in the station file for a period of at least 30 days.

61.7104. Clearance Contents—The following rules will govern the clearance contents:

61.71040 (a). The clearance shall contain or have attached thereto all current weather reports as outlined in 61.60 over the airway or part thereof and, when available, any off-airway or on-call weather reports considered necessary or desirable by the pilot or dispatcher to insure the safety of the flight.

61.71041 (b). When available, the latest terminal and airway forecasts shall be included in or attached to the clearance and shall be considered by the dispatcher responsible and first pilot before clearance.

61.71042 (c). The dispatcher or duly authorized station personnel shall attach or enter all current reports or information pertaining to irregularities of navigational aids and facilities affecting the flight. He shall also inform the pilot, during flight, of any additional or different irregularities and the flight shall be controlled accordingly.

61.7105. Clearance Request Repetition—When a pilot requests clearance from a dispatcher authorized to clear the proposed flight and is refused such clearance, he shall not make a similar request from another dispatcher.

61.7106. Change in Clearance by Radio—If a change in clearance is desirable while the aircraft is in flight, the pilot may be given a change in clearance by radio by an authorized dispatcher, provided the two-way conversation appears in the radio log. If the pilot is refused such change by one dispatcher, he shall not make a similar request of another dispatcher.

61.7107. Weather Minimums: General—The following rules relating to weather conditions will govern the dispatching of

airline aircraft. No scheduled airline aircraft shall be dispatched unless:

61.71070 (a). At the time of take-off, the ceiling and visibility at the point of departure are equal to or better than those specified for departure in the weather competency letter.

61.71071 (b). In the event of ground fog, all take-offs or landings shall be made in strict accordance with the procedure specified in the weather competency letter.

61.7108. Weather Minimums: Visual-Contact Clearance—The following rules relating to weather conditions will govern the dispatching of airline aircraft in visual-contact operation. No scheduled airline aircraft shall be dispatched unless:

61.71080 (a). The hourly weather report and sequence and current weather forecasts shall show a trend that gives sufficient indication that the ceilings and visibilities along the entire route to be flown are and will remain at or above the minimums specified in the weather competency letter until the flight arrives at the point cleared to.

61.71081 (b). During day operation minimum visibility shall be one mile except contact flight may be made when visibility is reduced to one-half mile by local smoke, dust, haze, blowing snow or sand.

61.71082 (c). During night operation at least one beacon on the course shall be visible from the aircraft at all times.

61.7109. Weather Minimums: Instrument or Over-the-Top Clearance—The following rules relating to weather conditions will govern the dispatching of airline aircraft in instrument and/or over-the-top operation:

61.71090 (a). No scheduled airline aircraft shall be dispatched unless the observed weather information and current weather forecasts, pertaining to the point cleared to, give sufficient indication at the time of clearance that the ceiling and visibility are or will be, when the flight would arrive at such point, at or above the minimums specified in the weather competency letter for letting-down-through.

61.71091 (b). When the observed weather information and current weather forecasts pertaining to the point cleared to give sufficient indication, at the time of clearance, that the ceilings and visibility are, and will remain until the flight would arrive at such point, at or above the minimums specified in the weather competency letter for letting-down-through, there shall be at least one designated alternate airport or intermediate field specified on the appropriate flight clearance. Such alternate airport or field shall be suitable for landing and be within the fuel and oil requirements as outlined in CAR 61.702.

61.71092 (c). If the alternate referred to in CAR 61.71091 is equipped with a radio range beacon, the weather conditions existing thereat at the time of clearance must indicate that the ceilings and visibility are, and will remain until the flight would arrive at such point, at or above the minimums specified in the weather competency letter for letting-down-through, and the hourly weather report sequence and current forecast shall show a trend that gives sufficient indication of weather conditions continuing so until the flight would arrive thereat.

61.71093 (d). If the alternate referred to in CAR 61.71091 is not equipped with a radio range beacon, the weather conditions existing thereat at the time of clearance must be equal to, or better than, broken clouds and a ceiling of 1,000 feet and visibility of 2 miles, and the hourly weather report sequence and forecast shall show a trend that gives sufficient indication of continuing so until the flight would arrive thereat. The Secretary may, in his discretion, prescribe higher minimums.

61.71094 (e). When the ceiling or visibility at the point cleared to is below the minimum specified in the weather competency letter for landing-down-through, but the weather reports pertaining to such point at such time shall show a trend, by the hourly sequence and current forecast, that gives sufficient indication of the weather conditions improving to or above such minimums upon arrival of the



flight thereat, 2 designated alternate airports or intermediate fields specified in the appropriate flight clearance. Each such alternate shall be suitable for landing and be within the fuel and oil requirements, as outlined in CAR 61.702.

61.71095 (f). If any one of the alternates, referred to in CAR 61.71094, is equipped with a radio range beacon, the weather conditions existing at such alternate at the time of clearance shall not be less than the minimums provided for in CAR 61.71092.

61.71096 (g). If any one of the alternates, referred to in CAR 61.71094, is equipped with a radio range beacon, the weather conditions existing at such alternate at the time of clearance shall not be less than the minimums provided for in CAR 61.71093.

61.7110. Clearance of Flights on Alternate Routes—Clearance of flights on alternate routes shall not be permitted unless such route or routes have been approved and listed in the letter of competency, and conditions on the regular route are such that the flight would otherwise be canceled or delayed, or when for the purpose of keeping pilots qualified over such routes. When such flights are made for qualifying pilots, such flights shall be made by visual-contact with visibility not less than 5 miles as observed from the aircraft over the entire route. When flights are cleared over alternate routes due to conditions on the regular route being such that flight is considered inadvisable, the weather conditions on the alternate route shall be equal to or better than those listed in the letter of competency for the particular alternate route.

61.7111. Late or Off-Schedule Flights—When variations from the regular schedules occur, the dispatcher shall take such action or issue such special orders as may be necessary and proper.

61.7112. Flight Hazards—No scheduled airline flight shall be dispatched, or permitted to continue in flight, when there is a known probability of its encountering any hazardous conditions in making or continuing such flight.

#### 61.72. Flight Preparation and Take-Off Rules

61.7200. Radio Ground Check—Before departure from the originating terminal on any scheduled airline operation, at least one check shall be made by the pilot of the radio system to be used in flight.

61.7201. Radio Check After Take-Off—When a trailing antenna is used, a precautionary radio check to determine possible loss of such antenna shall be made as soon as practicable after take-off.

61.7202. Control Tests—The pilot shall test the flight controls on the ground and determine that they are functioning properly.

61.7203. View of Traffic—Immediately prior to take-off, the pilot shall maneuver the aircraft to a position from which he can observe incoming and outgoing aircraft.

61.7204. Engine Tests—Before the take-off run, the aircraft engine or engines shall be individually tested at full throttle, except that supercharged engines shall be tested at run-up r. p. m. at the manifold pressure specified by the operator for the particular conditions involved. The engine temperatures (including oil, carburetor, and head temperatures) shall be normal and each magneto shall be individually tested.

61.72040 (a). No person other than a certificated airman may run-up the engine or engines of an airline aircraft while such engines are installed in an airline aircraft.

61.72041 (b). Engine run-ups shall be conducted in such a manner as to minimize the effect of loose gravel, cinders and like material in contacting the propeller blades, aircraft control, lift and stabilizing surfaces.

61.7205. Instrument Tests—Before the take-off run, as many as possible of the aircraft flight instruments, and particularly all pressure gauges and gyroscopic flight instruments, shall be tested by the pilot to determine that they are all functioning properly.

61.7206. Take-Off Restrictions—No pilot shall take-off any airline aircraft if, in his opinion, the aircraft is not airworthy.

No pilot shall take-off any airline aircraft at any time when an engine is not functioning properly.

61.7207. Runway Utilization—The take-off shall be started from a point which makes available the greatest length of runway, considering the direction of the wind.

61.7208. Restricted-Vision Take-Offs—If a method of take-off, under conditions of restricted vision (including conditions of ground fog), is specified in the weather competency letter, it shall be strictly followed.

61.7209. Banking after Take-Off—So far as practicable, the aircraft shall not be banked immediately after take-off until at least a minimum altitude of 500 feet has been attained.

61.7210. Pilots at Controls—Neither pilot shall leave the controls during ascent of the aircraft immediately following take-off.

61.7211. Take-Off from Fields Not Designated as Airports—No scheduled airline aircraft shall take-off with passengers from any field not designated as an airport until such aircraft has been properly cleared by a dispatcher authorized to act in such an emergency and until a complete agreement has been reached by both the pilot in command of such flight and the authorized dispatcher that such clearance can be accomplished with safety.

#### 61.73. Flight Course and Enroute Rules

61.730. Alternate Routes—Scheduled airline aircraft shall not be operated over an alternate route unless authorized to do so in a route competency letter and then only in compliance with the provisions thereof.

61.731. Deviation from Airway—Scheduled airline aircraft shall not deviate from the prescribed airway except when the circumstances render such deviation necessary as an emergency safety measure. Any such deviation shall be explained by the pilot in a written report to the airline operations manager. The operations manager shall furnish a copy of such report with comments promptly to the Secretary.

61.732. Dispatcher Emergency Decisions—In an emergency situation, arising during the course of the flight, which requires immediate decision and action on the part of the dispatcher, and that is known to him, the airline dispatcher shall notify and advise the pilot as to such situation. Further, the dispatcher shall determine from the pilot what final decision has been made by such pilot and shall enter it in the station radio log.

#### 61.74. Flight Altitude Rules

61.740. Visual-Contact Day or Night—Except during take-offs and landings, no scheduled airline aircraft shall be flown at an altitude less than 500 feet above the ground, or within 500 feet from any mountain, hill, or other obstruction to flight, except as may be specifically approved by the Secretary.

61.741. Instrument Flights—Altitudes established for instrument flights by the provisions of CAR 60. shall be strictly adhered to during such flights. Except during take-offs, and final approaches and landings, no instrument flight shall be conducted within 1,000 feet above the ground or any obstruction.

61.742. Maximum Altitude of Flight Operations—In scheduled airline aircraft carrying passengers and operating at an altitude above 15,000 feet above sea level, there shall be a competent cabin attendant provided to observe and care for the passengers. Scheduled airline flights above 15,000 feet are prohibited except for the periods of time which are necessary to clear obstructions to flight and to avoid hazardous weather conditions. Scheduled airline flights at altitudes above 18,000 feet are prohibited unless specifically permitted by the terms of the weather competency letter.

#### 61.75. Instrument Approach Rules

61.750. Altitude Maintenance on Initial Approach—When making an initial approach to a radio range station, on instruments or on top of overcast or clouds, an aircraft in scheduled airline operation shall not descend below the pertinent minimum altitude for initial approach specified in the weather competency letter for such station, until arrival over the radio range station has been definitely proved by



the method outlined in the appropriate instrument approach procedures of the weather competency letter.

61.751. Letting-Down-Through Procedure—When instrument authority is authorized standard instrument approach procedure shall be established by the operator for each radio range station used or to be used for letting-down-through, and approved by the Secretary and included in the weather competency letter. The letting-down-through methods, procedures and minimums specified, shall be strictly adhered to.

#### 61.76. Landing Rules

61.760. Pilots at Controls—The pilots shall remain at their controls during the final approach and landing.

61.761. Restricted-Vision Landing—The Method of landing under conditions of restricted vision, when authorized, will be specified in the weather competency letter and shall be strictly adhered to.

#### 61.77. Flight Interruption Rules

61.770. Weather Interruption—If any hazardous flight condition is encountered enroute, the pilot shall broadcast information as to the course of action which he is taking and as to his reasons therefor.

61.771. Mechanical Interruptions—In the event of any mechanical failure or interruption (including failure of engine, flight instrument, radio, or other essential component of the aircraft) which may involve the safety of the flight, the pilot shall proceed to and land at the nearest place where a safe landing can be effected. (For general pilot authorization, in emergency situations, see CAR 61.7812.)

#### 61.78. General Pilot Rules

61.7800. Command of Flight—The first pilot shall be in command during the flight of the aircraft.

61.7801. Remaining at Controls—The pilots shall remain at their posts while the aircraft is in flight and shall not leave the pilots' compartment except when it is necessary in attending to their regular duties or when replaced by a person authorized in CAR 61.7803. When a second pilot is required to attend passengers, he shall not, unless the first pilot deems it necessary, leave the pilots' compartment until the aircraft has ascended to its cruising altitude, or during the final stages of an approach for a landing.

61.7802. Manipulation of Controls—No person, other than a first or second pilot shall manipulate the controls of an airline aircraft while in scheduled flight, provided, however, that at the discretion of the first pilot such restriction shall not apply to an authorized airline inspector of the Department of Commerce or to properly qualified company personnel.

61.7803. Pilots' Compartment—The door or doors between the pilots' compartment and the passenger compartment shall be kept closed when the aircraft is in flight. No person shall be admitted to such pilots' compartment while the aircraft is in scheduled flight, except at the discretion of the first pilot, an employee authorized by the operator or any of the following personnel of the Department of Commerce may be admitted

Secretary of Commerce  
Assistant Secretary of Commerce  
Director of Air Commerce  
Assistant Director of Air Commerce  
Chief, Certificate and Inspection Division  
Chief, Airline Inspection Section  
Supervisor, Air Traffic Control  
Airline Inspectors of Operation  
Airline Inspectors of Maintenance  
Airline Inspectors of Radio

61.7804. Radio Head-Sets—A radio telephone headset shall be worn by the first pilot or by a second pilot and the radio tuned to appropriate frequencies at least during the time while the aircraft is in flight or taxiing.

61.7805. Time of Reporting for Duty—The pilot in command of any scheduled flight and the second pilot shall report to the operations office of the operator in sufficient time prior to the start of any scheduled flight to study and familiarize themselves with weather conditions on the route

to be flown and for the plan of flight to be executed for the proposed schedule.

61.7806. Local Airport Rules and Interline Agreements—Pilots shall at all times comply with accepted safety agreements or practices, including current interairline agreements and local airport traffic rules.

61.7807. Pilot Seat Belts—Any pilot while actually manipulating or in a situation where he may have to take over the controls shall keep his seat belt fastened at all times.

61.7808. Maneuvers—All aircraft maneuvers not necessary to the safe and orderly progress of the flight shall be avoided.

61.7809. Maps and Flight Equipment—It shall be the responsibility of the pilot in command before any scheduled flight is started to have in his possession in the cockpit proper flight and navigational facility maps, including instrument approach procedures when instrument flight is authorized, and such other flight equipment as may be necessary to properly conduct the particular flight proposed.

61.7810. Flashlights—It shall be the responsibility of the pilot in command to see that 2 satisfactory flashlights in good working order are provided in the aircraft and accessible to both pilots.

61.7811. Emergency Decisions—The first pilot is authorized, in emergency situations which require immediate decision and action, to resolve upon a course of action which is required by the factors and information available to him. He may, in such situations, deviate from prescribed methods, procedures or minimums to the extent required by considerations of safety. When such emergency authority is exercised, the pilot shall keep the proper control station fully informed regarding the progress of the flight. He shall submit a written report of any such deviation to his operations manager. The operations manager shall furnish a copy of such report, with his comments, promptly to the Secretary.

#### 61.79. Miscellaneous Rules

61.790. Distribution of Notices—The operator shall set up some provisions for the prompt transmission of all information pertaining to changes and irregularities of all navigational aids and facilities over his entire system. In addition where inter-airline agreements, airway traffic control regulations, and local airport traffic rules, etc., have been provided and adopted, on any portion of the route or routes, prompt notice and appropriate instructions shall be given to all personnel concerned.

#### 61.791. Airline Aircraft Proving Period

61.7910 (a). All airline aircraft of a new make or model shall have at least 100 hours of proving tests in the hands of an airline operator, under the supervision of an authorized representative of the Bureau of Air Commerce before authority for carrying passengers may be issued. At least 50 hours of such tests shall be on scheduled operation and include at least 10 hours of night operation.

61.7911 (b). In the case of major changes on aircraft previously proved, or the use of the same aircraft on a different operation, 50 hours of proving tests similar to that outlined in the preceding paragraph may be required, at least 25 hours of which shall be in scheduled operation.

61.7912 (c). During the tests specified in (a) and (b) above, passengers other than those essential to the tests are prohibited. Mail, express and/or cargo may be carried, at the discretion of the Secretary.

61.792. Smoking Rules—The operator may permit smoking in scheduled airline aircraft except in berths of sleeper planes and during refueling, provided:

61.7920 (a). The aircraft carries a second pilot or cabin attendant, who shall notify passengers when and where smoking is prohibited.

61.7921 (b). Sufficient ash containers of a suitable type are provided.

61.793. No Smoking Signs—A prominent "No Smoking" sign shall be displayed in berths.

61.794. Smoking in Pilot Compartment—When the operator permits smoking in the pilot compartment, suitable ash



containers for the members of crew shall be provided. In no event shall smoking be permitted during take-offs, landing and refueling.

61.795. Radio Rules—The following rules will govern the use and operation of radio facilities by an airline operator.

61.7950 (a). Radio facilities, exclusive of the emergency equipment, in the aircraft shall be operating and ready for immediate use at all times when the aircraft is in flight.

61.7951 (b). The radio communications system required by the civil air regulations shall at all times be operated in strict accordance with the rules and regulations provided therefor by the Federal Communications Commission.

61.7952 (c). Where a communication channel serves point-to-point contacts in addition to ground to plane it is required that priority of the circuit be given to plane to ground and ground to plane communication. Where in the opinion of the Secretary the volume of point-to-point traffic is so heavy as to interfere with the primary purpose of the circuit, i. e., plane to ground and ground to plane contacts, the Secretary may require that all other traffic be removed from this circuit.

#### 61.8. OPERATIONS MANUAL

61.80. *Necessity For:* Each operator of a scheduled airline shall prepare and maintain an operations manual for the use and guidance of the airline flight and ground personnel. If desired by the operator, such manual may be broken down into two or more parts, on a divisional basis, but the manual for each division shall be complete as pertains to such division.

61.81. *Contents:* Each operations manual, including a divisional manual, shall contain

61.810. (a) a copy of the current route and weather competency letters,

(b) a copy of all interline traffic agreements affecting the particular operation involved; and

(c) any other data or information which the operator desires to include for the efficiency or safety of the operation.

61.82. *Form:* The operations manual shall be loose-leaf in form, and each page therein shall be numbered and dated to show the currency of all material contained therein. All copies of such manual shall at all times be kept up to date.

61.83. *Delivery of Copies:* A copy of the operations manual shall be furnished to at least the following persons:

(a) the Secretary of Commerce;

(b) the Chief of the Airline Inspection Section, Bureau of Air Commerce;

(c) each airline inspector of the Bureau of Air Commerce in charge of inspection on any portion of the route, including any division thereof;

(d) each airline first pilot;

(e) each airline second pilot;

(f) each person authorized for dispatching duty;

(g) each airline aircraft radio operator; and at

(h) each airline terminal and scheduled intermediate stop.

61.84. *Record of Copies:* Each airline operator shall keep a complete record of all persons to whom copies of its operations manual have been furnished.

61.85. *Changes:* The following rules will govern changes made in the operations manual:

61.850 (a). Any change, issuing from the Secretary, pertaining to the route or weather competency letter shall be promptly incorporated in the operations manual and a copy thereof sent, in the form of a new page of such manual, to each person required to hold a copy of the manual. Each amended page of the manual shall be properly dated.

61.851 (b). Upon receipt of such new page or pages, the recipient shall insert the current information in the manual.

61.852 (c). No change shall be made in any of the terms, specifications, conditions, limitations, or other provisions appearing in the airline certificate or in any appended competency letter without the approval, in writing, of the Secretary.

61.853 (d). Any data not issuing from the Secretary may be changed by the operator, without approval of the Secretary,

provided such change is not inconsistent with any Federal regulation or competency letter or safe operation practice. Notice of any such change shall be given promptly in accordance with the provisions of CAR 61.850.

#### 61.9. REPORTS

61.90. *General:* Each scheduled domestic airline operator shall furnish the Secretary such reports as may be required by him.

61.91. *Monthly Report:* A monthly operations report shall be submitted on Form No. AC 61-1 to the Secretary not later than the 20th of the next succeeding month.

61.92. *Mechanical Interruption:* Two copies of mechanical interruption in flight report shall be submitted to the Secretary, through the airline maintenance inspector of the Bureau of Air Commerce who is assigned to such operation, on Form No. AC 61-2 as soon as possible, but not later than 10 days after a mechanical interruption occurs.

61.93. *Weather Interruption:* A weather interruption report shall be submitted to the Secretary on Form No. AC 61-3 as soon as possible but not later than 10 days after a weather interruption occurs. A duplicate copy thereof shall be sent to the Bureau of Air Commerce airline inspector who is assigned to such operation.

61.94. *Mechanical Record:* The records of the airline operator covering mechanical trouble shall be made available upon request to the Bureau of Air Commerce airline maintenance inspector who is assigned to such operation, or to any other authorized representative of the Secretary.

61.95. *Irregularity Report:* All airmen, including flight and ground personnel, shall immediately report any irregularity or hazard which exists on or adjacent to any civil airway, and which in their opinion, makes for unsafe operation of aircraft in flight. Such report shall be made to the airline operations manager, who shall verify its accuracy to the best of his ability. If the report is justified, notice of the irregularity or hazard shall at once be given to the Secretary.

[F. R. Doc. 37-2897; Filed, September 28, 1937; 2:23 p. m.]

### RURAL ELECTRIFICATION ADMINISTRATION.

[Administrative Order No. 141]

#### ALLOCATION OF FUNDS FOR LOANS

SEPTEMBER 27, 1937.

By virtue of the authority vested in me by the provisions of Section 4 of the Rural Electrification Act of 1936, I hereby allocate, from the sums authorized by said Act, funds for loans for the projects and in the amounts as set forth in the following schedule:

Project designation:	Amount
Wisconsin 8025B Monroe	\$72,000

JOHN N. CARMODY, Administrator.

[F. R. Doc. 37-2902; Filed, September 29, 1937; 9:51 a. m.]

### SECURITIES AND EXCHANGE COMMISSION.

#### SECURITIES EXCHANGE ACT OF 1934

##### RULE AS TO NON-DISCLOSURE OF CERTAIN INFORMATION

The Securities and Exchange Commission acting pursuant to authority conferred upon it by the Securities Exchange Act of 1934, particularly Section 23 (a) thereof, and finding that the disclosure of information obtained in the course of examinations and investigations conducted pursuant to Sections 17 (a) and 21 (a) would be contrary to the public interest and would interfere with the execution of the functions vested in the Commission, hereby adopts the following rule:

##### Rule A4. Non-disclosure of Information Obtained in the Course of Examinations and Investigations

Information or documents obtained by officers or employees of the Commission in the course of any examination



or investigation pursuant to Section 17 (a) or 21 (a) shall, unless made a matter of public record, be deemed confidential. Officers and employees are hereby prohibited from making such confidential information or documents available to anyone other than a member, officer, or employee of the Commission, unless the Commission authorizes the disclosure of such information or the production of such documents as not being contrary to the public interest. Any officer or employee who is served with a subpoena requiring the disclosure of such information or the production of such documents shall appear in court and, unless the authorization described in the preceding sentence shall have been given, shall respectfully decline to disclose the information or produce the documents called for, basing his refusal upon this rule. Any officer or employee who is served with such a subpoena shall promptly advise the Commission of the service of such subpoena, the nature of the information or documents sought, and any circumstances which may bear upon the desirability of making available such information or documents.

The foregoing action shall be effective immediately upon publication.

By the Commission.

[SEAL]

FRANCIS P. BRASSOR, *Secretary*.

[F. R. Doc. 37-2907; Filed, September 29, 1937; 12:56 p. m.]

*United States of America—Before the Securities and Exchange Commission*

At a regular session of the Securities and Exchange Commission held at its office in the City of Washington, D. C., on the 29th day of September, A. D. 1937.

[File No. 43-77]

*IN THE MATTER OF HAVERHILL ELECTRIC COMPANY*

*NOTICE OF AND ORDER FOR HEARING*

A declaration having been duly filed with this Commission, by Haverhill Electric Company, a subsidiary of New England Power Association, pursuant to Section 7 of the Public Utility Holding Company Act of 1935, regarding the issue by said Haverhill Electric Company to North Boston Lighting Properties, a registered holding company of which the declarant is a subsidiary, of 3% Demand Notes of Haverhill Electric Company in the aggregate principal amount of \$674,375 to evidence a loan of a like aggregate amount to be made by North Boston Lighting Properties to Haverhill Electric Company;

*It is ordered*, That a hearing on such matter be held on October 18, 1937, at 10:00 o'clock in the forenoon of that day at Room 1103, Securities and Exchange Building, 1778 Pennsylvania Avenue NW., Washington, D. C.; and

Notice of such hearing is hereby given to said party and to any interested State, State commission, State securities commission, municipality, and any other political subdivision of a State, and to any representative of interested consumers or security holders, and any other person whose participation in such proceeding may be in the public interest or for the protection of investors or consumers. It is requested that any person desiring to be heard or to be admitted as a party to such proceeding shall file a notice to that effect with the Commission on or before October 12, 1937.

*It is further ordered*, That Robert P. Reeder, an officer of the Commission, be and he hereby is designated to pre-

side at such hearing, and authorized to adjourn said hearing from time to time, to administer oaths and affirmations, subpoena witnesses, compel their attendance, take evidence, and require the production of any books, papers, correspondence, memoranda, contracts, agreements, or other records deemed relevant or material to the inquiry, and to perform all other duties in connection therewith authorized by law.

Upon the completion of the taking of testimony in this matter, the officer conducting said hearing is directed to close the hearing and make his report to the Commission.

By the Commission.

[SEAL]

FRANCIS P. BRASSOR, *Secretary*.

[F. R. Doc. 37-2906; Filed, September 29, 1937; 12:56 p. m.]

*United States of America—Before the Securities and Exchange Commission*

At a regular session of the Securities and Exchange Commission held at its office in the City of Washington, D. C., on the 29th day of September, A. D. 1937.

[File No. 43-76]

*IN THE MATTER OF NORTH BOSTON LIGHTING PROPERTIES*

*NOTICE OF AND ORDER FOR HEARING*

A declaration having been duly filed with this Commission, by North Boston Lighting Properties, a subsidiary of New England Power Association, a registered holding company, pursuant to Section 7 of the Public Utility Holding Company Act of 1935, regarding the issue and sale by North Boston Lighting Properties through underwriters of its Secured Notes, 3 1/4%, Series due 1947, in the aggregate principal amount of \$13,000,000;

*It is ordered*, That a hearing on such matter be held on October 18, 1937, at 10:00 o'clock in the forenoon of that day at Room 1103, Securities and Exchange Building, 1778 Pennsylvania Avenue NW., Washington, D. C.; and

Notice of such hearing is hereby given to said party and to any interested State, State commission, State securities commission, municipality, and any other political subdivision of a State, and to any representative of interested consumers or security holders, and any other person whose participation in such proceeding may be in the public interest or for the protection of investors or consumers. It is requested that any person desiring to be heard or to be admitted as a party to such proceeding shall file a notice to that effect with the Commission on or before October 12, 1937.

*It is further ordered*, That Robert P. Reeder, an officer of the Commission, be and he hereby is designated to preside at such hearing, and authorized to adjourn said hearing from time to time, to administer oaths and affirmations, subpoena witnesses, compel their attendance, take evidence, and require the production of any books, papers, correspondence, memoranda, contracts, agreements, or other records deemed relevant or material to the inquiry, and to perform all other duties in connection therewith authorized by law.

Upon the completion of the taking of testimony in this matter, the officer conducting said hearing is directed to close the hearing and make his report to the Commission.

By the Commission.

[SEAL]

FRANCIS P. BRASSOR, *Secretary*.

[F. R. Doc. 37-2905; Filed, September 29, 1937; 12:56 p. m.]